# Play Analysis and Digital Portfolio of Major Oil Reservoirs in the Permian Basin: Application and Transfer of Advanced Geological and Engineering Technologies for Incremental Production Opportunities

*Annual Report*

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## ABSTRACT

A play portfolio is being constructed for the Permian Basin in west Texas and southeast New Mexico, the largest onshore petroleum-producing basin in the United States. Approximately 1,300 reservoirs in the Permian Basin have been identified as having cumulative production greater than 1 MMbbl ($1.59 \times 10^5$ $m^3$) of oil through 2000. Of these significant-sized reservoirs, approximately 1,000 are in Texas and 300 in New Mexico. There are 32 geologic plays that have been defined for Permian Basin oil reservoirs, and each of the 1,300 major reservoirs was assigned to a play. The reservoirs were mapped and compiled in a Geographic Information System (GIS) by play. The final reservoir shapefile for each play contains the geographic location of each reservoir. Associated reservoir information within the linked data tables includes RRC reservoir number and district (Texas only), official field and reservoir name, year reservoir was discovered, depth to top of the reservoir, production in 2000, and cumulative production through 2000. Some tables also list subplays. Play boundaries were drawn for each play; the boundaries include areas where fields in that play occur but are smaller than 1 MMbbl ($1.59 \times 10^5$ $m^3$) of cumulative production.

Oil production from the reservoirs in the Permian Basin having cumulative production of >1 MMbbl ($1.59 \times 10^5$ $m^3$) was 301.4 MMbbl ($4.79 \times 10^7$ $m^3$) in 2000. Cumulative Permian Basin production through 2000 was 28.9 Bbbl ($4.59 \times 10^9$ $m^3$). The top four plays in cumulative production are the Northwest Shelf San Andres Platform Carbonate play (3.97 Bbbl [$6.31 \times 10^8$ $m^3$]), the Leonard Restricted Platform Carbonate play (3.30 Bbbl [$5.25 \times 10^8$ $m^3$), the Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play (2.70 Bbbl [$4.29 \times 10^8$ $m^3$]), and the San Andres Platform Carbonate play (2.15 Bbbl [$3.42 \times 10^8$ $m^3$]).

Detailed studies of three reservoirs are in progress: Kelly-Snyder (SACROC unit) in the Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play, Fullerton in the Leonard Restricted Platform Carbonate play, and Barnhart (Ellenburger) in the Ellenburger Selectively Dolomitized Ramp Carbonate play. For each of these detailed reservoir studies, technologies for further, economically viable exploitation are being investigated.

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## Executive Summary

The target of this PUMP project is the Permian Basin of west Texas and southeast New Mexico, the largest onshore petroleum-producing basin in the United States. More than in any other region, increased use of preferred management practices in Permian Basin oil fields will have a substantial impact on domestic production. The Bureau of Economic Geology (BEG) and the New Mexico Bureau of Geology and Mineral Resources (NMBGMR) have teamed up to conduct this play analysis of the Permian Basin. The objectives of the project are to (1) develop an up-to-date portfolio of oil plays in the Permian Basin of west Texas and southeast New Mexico, (2) study key reservoirs from some of the largest or most active plays to incorporate information on improved practices in reservoir development in the portfolio, and (3) widely disseminate the play portfolio to the public via CD, the Internet, and other media. The oil-play portfolio will contain play maps that locate all significant-sized reservoirs in the play, defined as reservoirs having cumulative production of >1 MMbbl ($1.59 \times 10^5$ $m^3$). Play maps will be linked to a database listing cumulative production and other reservoir information. The portfolio will also include a summary description of each play, including key reservoir characteristics and preferred management practices, where possible.

During the second year of the project, the definition of 32 oil plays covering both the Texas and New Mexico parts of the Permian Basin was finalized. Plays were defined on the basis of reservoir stratigraphy and lithology, depositional environment, and structural and tectonic setting of the reservoir. All ~1,300 reservoirs in the Permian Basin having cumulative production >1 MMbbl ($1.59 \times 10^5$ $m^3$) of oil through December 31, 2000, were assigned to a play. A reservoir database was established that lists the Railroad Commission of Texas (RRC) reservoir number and district (Texas only), official field and reservoir name, year the reservoir was discovered, depth to the top of the reservoir, production during 2000, and cumulative production through 2000. In Texas, cumulative production is listed only under the final reservoir name into which one or more other reservoirs had been transferred.

Mapping and compilation of the 1,300 major oil reservoirs in the Permian Basin was completed this year. Different procedures were used for reservoirs in Texas and New Mexico because of the different data available in each state. In both states, mapping of reservoir outlines was done by play in ArcView™GIS. GIS play maps from Texas and New Mexico were merged to form digital data files, or *shapefiles*, of each play in the Permian Basin. Play boundaries were drawn for each play, which include areas where fields in the play occur but fields are <1 MMbbl ($1.59 \times 10^5$ $m^3$) of cumulative production. The final reservoir shapefile for each play contains the geographic location of each reservoir and associated reservoir information within the linked dBASE data table. The final GIS product of this process will be an ArcView project file containing base map, series of play-specific reservoir shapefiles, and play-boundary shapefile.

Analysis of production data indicates that the Permian Basin remains a major oil-producing region. Oil production from the significant-sized reservoirs in the Permian Basin having cumulative production >1 MMbbl ($1.59 \times 10^5$ m$^3$) was 301.4 MMbbl ($4.79 \times 10^8$ m$^3$) in 2000. The top four oil-producing plays in 2000 were the Northwest Shelf San Andres Platform Carbonate play (50.7 MMbbl [$8.06 \times 10^6$ m$^3$]), the Leonard Restricted Platform Carbonate play (49.9 MMbbl [$7.93 \times 10^6$ m$^3$]), the Spraberry/Dean Submarine Fan Sandstone play (27.6 MMbbl [$4.39 \times 10^6$ m$^3$]), and the San Andres Platform Carbonate play (26.4 MMbbl [$4.20 \times 10^6$ m$^3$]). Cumulative Permian Basin production through 2000 was 28.9 Bbbl ($4.79 \times 10^9$ m$^3$). The top four plays in cumulative production are the Northwest Shelf San Andres Platform Carbonate play (3.97 Bbbl [6.31  $10^8$ m$^3$]), the Leonard Restricted Platform Carbonate play (3.30 Bbbl [$5.25 \times 10^8$ m$^3$]), the Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play (2.70 Bbbl [$4.29 \times 10^8$ m$^3$]), and the San Andres Platform Carbonate play (2.15 Bbbl [$3.42 \times 10^8$ m$^3$]).

Reservoir-characterization studies of key reservoirs from three of the largest or most active plays in the Permian Basin are being conducted. Detailed studies have been made of the following reservoirs: Kelly-Snyder (SACROC unit) in the Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play, Fullerton in the Leonardian Restricted Platform Carbonate play, and Barnhart (Ellenburger) in the Ellenburger Selectively Dolomitized Ramp Carbonate play. We investigated the geologic heterogeneity in these reservoirs to better understand production constraints that would apply to all reservoirs in that play. For each of these detailed reservoir studies, technologies for further, economically viable, exploitation were investigated. The information on improved practices in reservoir development will be incorporated into the portfolio.

## Introduction

This PUMP project, now nearing completion, has made significant progress toward all goals and objectives. This report describes the work accomplished on the project during the second year.

The focus of the project is the Permian Basin of west Texas and southeast New Mexico (figs. 1, 2), the largest onshore petroleum-producing basin in the United States. The Bureau of Economic Geology (BEG) and the New Mexico Bureau of Geology and Mineral Resources (NMBGMR) have teamed up to conduct a play analysis of the Permian Basin. The objectives of the project are to (1) develop an up-to-date portfolio of oil plays in the Permian Basin of West Texas and southeast New Mexico, (2) study key reservoirs from some of the largest or most active plays to incorporate information on improved practices in reservoir development in the portfolio, and (3) widely disseminate the play portfolio to the public via CD, the Internet, and other media. The oil-play portfolio will contain play maps that locate all significant-sized reservoirs in the play having a cumulative production of >1 MMbbl ($1.59 \times 10^5$ $m^3$) through December 31, 2000. Play maps will be linked to a database listing cumulative production and other reservoir information. The portfolio will also contain a summary description of each play, including key reservoir characteristics and preferred management practices, where possible.

The Permian Basin produced 18 percent of the total U.S. oil production in 1999, and it contains an estimated 23 percent of the proved oil reserves in the United States (EIA, 2000). Moreover, this region has the biggest potential for additional oil production in the country, containing 29 percent of estimated future oil reserve growth (Root and others, 1995). Original oil in place (OOIP) in the Permian Basin was about 106 billion barrels (Bbbl) ($1.69 \times 10^{10}$ $m^3$)

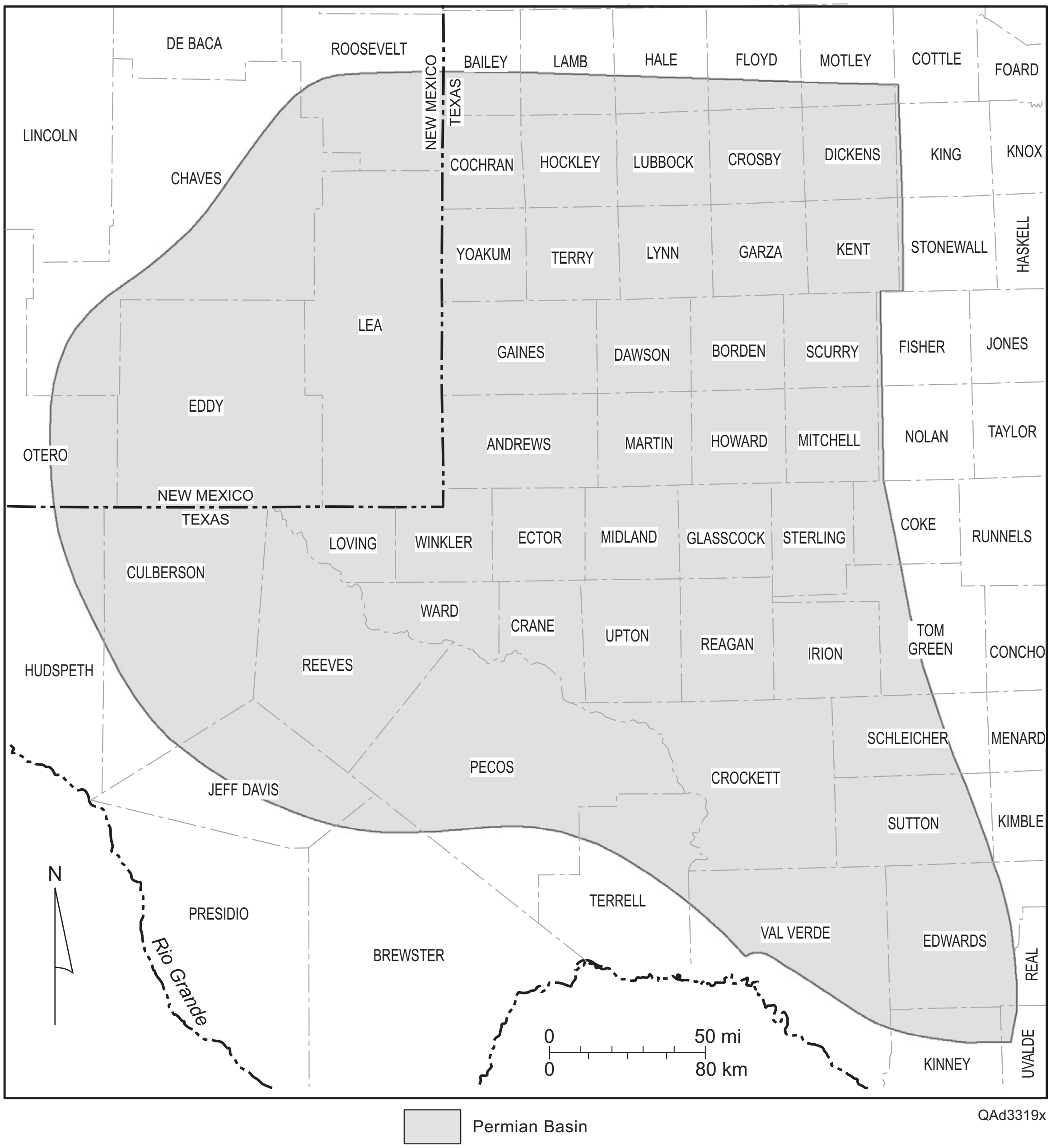


**Figure 1.** Counties in Texas and New Mexico in the Permian Basin geologic province.

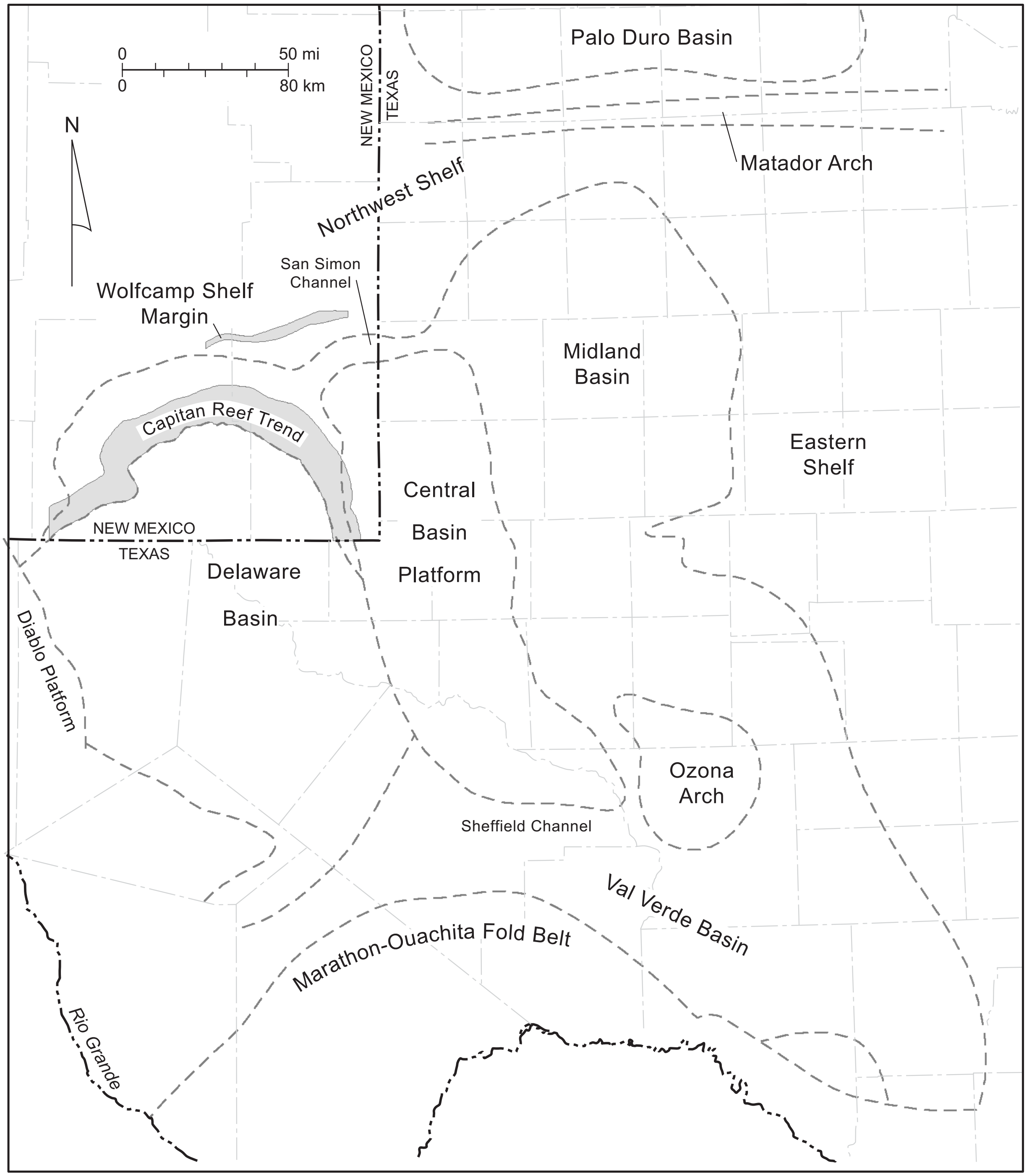


**Figure 2.** Major subdivisions and boundaries of the Permian Basin in west Texas and southeast New Mexico (modified from Hills, 1984; Frenzel and others, 1988; Kosters and others, 1989; Ewing, 1990; Tyler and others, 1991; Kerans and Fitchen, 1995). The Permian Basin is divided into the Northwest Shelf, Delaware Basin, Central Basin Platform, Midland Basin, Val Verde Basin, and Eastern Shelf.

(Tyler and Banta, 1989). After reaching a peak production of more than 665 million barrels (MMbbl) ($1.06 \times 10^8$ m$^3$) per year in the early 1970's, Permian Basin oil production has continuously fallen. By 2000, production had fallen to 301.4 MMbbl ($4.79 \times 10^7$ m$^3$), or less than half its peak production. Despite the continuing fall in production, the Permian Basin still holds a significant volume of recoverable oil. Although about 29 Bbbl ($4.61 \times 10^9$ m$^3$) of oil has been produced to date, this production represents only about 27 percent of the OOIP. Of the huge remaining resource in the basin, as much as 30 Bbbl ($4.77 \times 10^9$ m$^3$) of mobile oil and 45 Bbbl ($7.15 \times 10^9$ m$^3$) of residual remains as a target for improved technology and recovery strategies (Tyler and Banta, 1989). More than in any other region, increased use of preferred management practices in Permian Basin oil fields will have a substantial impact on domestic production because of the large remaining oil resource.

The Permian Basin is a mature area in which much of the future production will result from improved recovery from existing fields. One way of increasing recovery in a reservoir is to apply methods that have been used successfully in similar reservoirs. In order to do so, however, it is necessary to understand how reservoirs group naturally into larger families, or plays. A play is an assemblage of geologically similar reservoirs exhibiting the same source, reservoir, and trap characteristics (White, 1980). A play is delineated primarily according to the original depositional setting of the reservoirs or, less commonly, their relation to regional erosional surfaces or diagenetic facies (Galloway and others, 1983). Because of their relative geologic homogeneity, reservoirs in the same play have similar production characteristics. Characteristics of better known fields may be extrapolated with relative confidence to other reservoirs within the same play. Reservoir development methods that have been demonstrated to work well in one reservoir should be applicable to other reservoirs in the play.

Production in the Permian Basin occurs from Paleozoic reservoirs, from Ordovician through Permian age (fig. 3). Reservoir-characterization studies of key reservoirs from three of the largest and most active plays in the Permian Basin are being conducted as part of this project. The reservoirs being studied are Kelly-Snyder (SACROC unit) in the Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play, Fullerton in the Leonard Restricted Platform Carbonate play, and Barnhart (Ellenburger) in the Ellenburger Selectively Dolomitized Ramp Carbonate play (fig. 4). The geologic heterogeneity in these reservoirs is being investigated in order that production constraints that would apply to all reservoirs in that play become better understood. For each of these detailed reservoir studies, technologies for further, economically viable exploitation are being investigated. Information on improved practices in reservoir development will be incorporated into the portfolio.

In the first year of the project, which was summarized by Dutton and others (2003b), approximately 1,300 Permian Basin reservoirs were identified that had cumulative production of >1 MMbbl ($1.59 \times 10^5$ $m^3$) through December 31, 2000. A total of 32 oil plays were defined for the Permian Basin, and each of the 1,300 reservoirs was tentatively assigned to a play. Mapping the reservoirs in a Geographic Information System (GIS) began, and about half the reservoirs were mapped in the first year. Reservoir studies of the SACROC unit, Fullerton, and Barnhart (Ellenburger) were well under way. For each of these detailed reservoir studies, technologies for further, economically viable exploitation were investigated. A project Web site was established on the BEG Web site at http://www.beg.utexas.edu/resprog/permianbasin/index.htm. A link to the project Web site was established at the NMBGMR Web site, from http://geoinfo.nmt.edu/resources/petroleum/home.html.

Work completed during the second year of the project is summarized in this report.

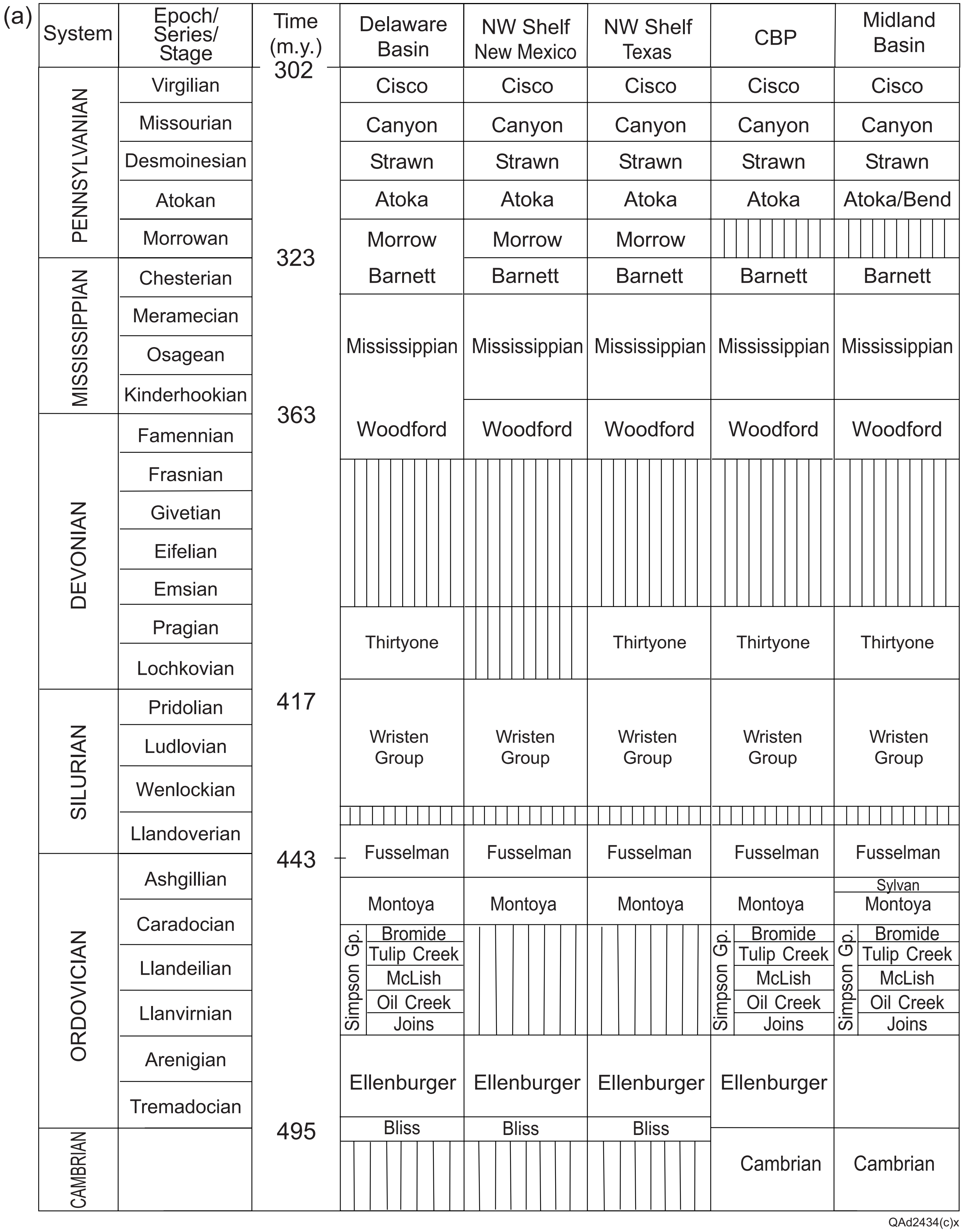


**Figure 3a.** Stratigraphic nomenclature for the Cambrian through Pennsylvanian section in the Permian Basin. Modified from S. C. Ruppel, personal communication, 2003.

| (b) System | Epoch/ Series/ Stage | Time (m.y.) | Delaware Basin | | NW Shelf New Mexico | | NW Shelf Texas | | CBP | | Midland Basin |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PERMIAN | Ochoan | 251 | | Dewey Lake | | Dewey Lake | | Dewey Lake | | Dewey Lake | Dewey Lake |
| | | | | Rustler | | Rustler | | Rustler | | Rustler | Rustler |
| | | | | Salado | | Salado | | Salado | | Salado | Salado |
| | | | | Castile | | Castile | | Castile | | | |
| | Guadalupian | | Delaware Mountain Group | Bell Canyon | Artesia Gp. | Tansill | Artesia Gp. | Tansill | Capitan, Artesia Gp. | Tansill | Tansill |
| | | | | | | Yates | | Yates | | Yates | Yates |
| | | | | | | Seven Rivers | | Seven Rivers | | Seven Rivers | Seven Rivers |
| | | | | Cherry Canyon | | Queen | | Queen | | Queen | Queen |
| | | | | | | Grayburg | | Grayburg | | Grayburg | Grayburg |
| | | | | Brushy Canyon | | Upper San Andres | | Upper San Andres | | Upper San Andres | San Andres |
| | | | | | | | | | | | Brushy Canyon |
| | | | | Cutoff | | Lower San Andres | | Lower San Andres | | Lower San Andres | |
| | Leonardian | | | | | | | | | Holt | |
| | | | Bone Spring | 1st carbonate | | Glorieta | | Glorieta | | Glorieta | |
| | | | | 1st sand | | | | | | | |
| | | | | 2nd carbonate | Yeso | Paddock | Clear Fork Group | Upper Clear Fork | Clear Fork Group | Upper Clear Fork | Spraberry |
| | | | | 2nd sand | | | | | | | |
| | | | | 3rd carbonate | | Blinebry | | Middle Clear Fork | | Middle Clear Fork | |
| | | | | 3rd sand | | Tubb | | Tubb | | Tubb | Dean |
| | | | | Lower carbonate | | Drinkard | | Lower Clear Fork | | Lower Clear Fork | |
| | | | | | | Abo | | Abo | | Abo/Wichita | |
| | Wolfcampian | | | Wolfcamp | | Wolfcamp | | Wolfcamp | | Wolfcamp | Wolfcamp |

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**Figure 3b.** Stratigraphic nomenclature for the Permian section in the Permian Basin. Modified from S. C. Ruppel, personal communication, 2003.

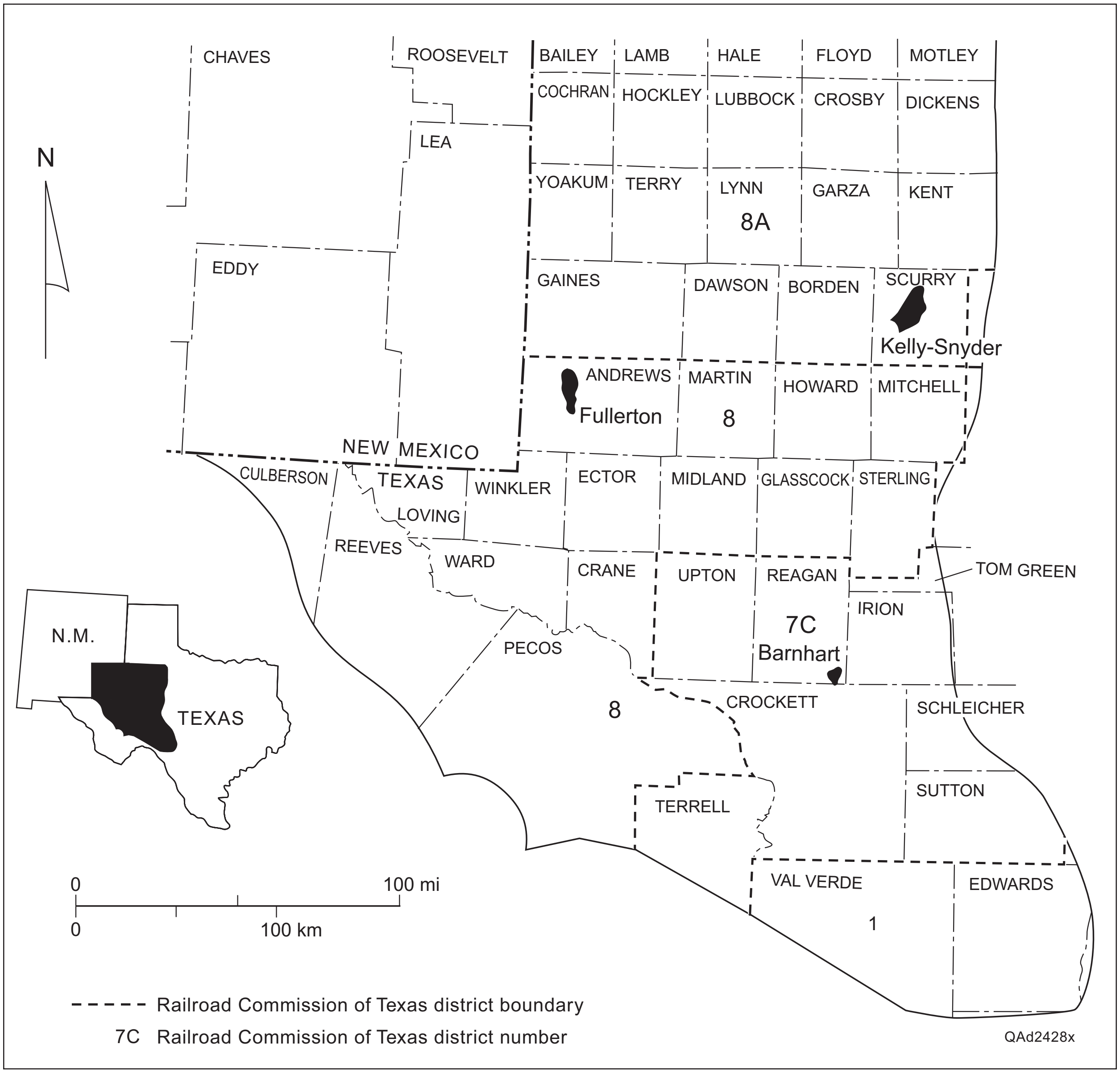


**Figure 4.** Location of reservoirs being studied in detail in this project: Kelly-Snyder (SACROC unit) in the Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play, Fullerton in the Leonard Restricted Platform Carbonate play, and Barnhart (Ellenburger) in the Ellenburger Selectively Dolomitized Ramp Carbonate play.

## Experimental Methods

No experimental methods or equipment is being used for this study. Information is obtained from published and publicly available sources and from commercially available databases. Reservoir locations in Texas are derived from producing-well location information in Landmark Graphic's Datastar™ and DrillingInfo.com, Inc. The ArcView™GIS software package is used for mapping the reservoirs.

## Results and Discussion

### *Play Definitions*

A major goal of this project is to define oil plays in the Permian Basin. Plays can generally be considered as groups of reservoirs that have similar geologic parameters, such as a common stratigraphic unit, reservoir lithology, reservoir depositional environment, structural and tectonic setting, or trapping mechanism. Gas plays are not included in this project.

In order for plays in the Permian Basin to be defined, it was necessary to determine the basin boundaries. The Permian Basin is subdivided into the Delaware Basin, Central Basin Platform, Midland Basin, Northwest Shelf, Eastern Shelf, and Val Verde Basin (fig. 2). On the west, the basin is bounded by the Guadalupe, Sacramento, Sierra Blanca, and Capitan Mountains in New Mexico and the Diablo Plateau in Texas. To the north, it is bounded by the Sin Nombre Arch of DeBaca County and the Roosevelt Uplift of Roosevelt County in New Mexico. In Texas the Matador Arch forms the northern boundary and separates the Midland Basin from the Palo Duro Basin. The southern boundary is the Marathon-Ouachita Fold Belt.

The eastern boundary of the Permian Basin is more difficult to define. Reservoirs on the Eastern Shelf of the Midland Basin are traditionally considered to be in the Permian Basin geologic province (Galloway and others, 1983). The Eastern Shelf, however, grades eastward onto the Concho Platform and Bend Arch in the North-Central Texas geologic province, with no clearly defined eastern limit. For this study, the eastern boundary of the Permian Basin was selected to follow the approximate position of the shelf edge during early Wolfcampian (Cisco Saddle Creek Limestone) time (Brown and others, 1987, 1990). The counties that occur in the Permian Basin are shown in figure 1. This definition of the Permian Basin is similar to that of Hills (1984).

The current structural features of the Permian Basin (fig. 2) developed during Late Mississippian and Early Pennsylvanian time (Hills, 1984; Frenzel and others, 1988). Prior to this time, a shallow, downwarped area was centered in Pecos and Terrell Counties during Simpson time, which was named the Tobosa Basin by Galley (1958).

Thirty-two oil plays covering both the Texas and New Mexico parts of the Permian Basin were defined (tables 1, 2; figs. 5 through 36). In most cases, the play names established in Texas can also be used in New Mexico because of identical stratigraphy, tectonic setting, and depositional environments. Twelve of the plays contain reservoirs in both Texas and New Mexico. Fifteen plays contain reservoirs in Texas only, and five plays contain reservoirs in New Mexico only. The plays have been extensively modified from those defined in the *Atlas of Major Texas Oil Reservoirs* (Galloway and others, 1983) on the basis of the past 20 years of research on Permian Basin reservoirs. The oil atlas and more recent play assessments of the Permian Basin by Kosters and others (1989), Tyler and others (1991), Holtz and Kerans (1992), Holtz and others

Table 1. Cumulative production of oil plays in the Permian Basin, listed by reservoir age. Production is through December 31, 2000.

| Play code | Reservoir age | Cum. prod. (MMbbl) |
|---|---|---|
| | **Permian** | |
| | ***Guadalupian*** | |
| 132 | Artesia Platform Sandstone | 1,855.4 |
| 131 | Queen Tidal-Flat Sandstone | 179.6 |
| 130 | Delaware Mountain Group Basinal Sandstone | 351.9 |
| 129 | Grayburg High-Energy Platform Carbonate—Ozona Arch | 298.4 |
| 128 | Grayburg Platform Carbonate | 1,271.2 |
| 127 | Grayburg Platform Mixed Clastic/Carbonate | 669.7 |
| 126 | San Andres/Grayburg Lowstand Carbonate | 681.1 |
| 125 | Upper San Andres and Grayburg Platform Mixed—Artesia Vacuum Trend | 796.4 |
| 124 | Upper San Andres and Grayburg Platform Mixed—Central Basin Platform Trend | 809.0 |
| 123 | San Andres Platform Carbonate | 2,151.3 |
| 122 | San Andres Karst-Modified Platform Carbonate | 1,567.1 |
| 121 | Eastern Shelf San Andres Platform Carbonate | 706.9 |
| 120 | Northwest Shelf San Andres Platform Carbonate | 3,969.3 |
| | ***Leonardian*** | |
| 119 | Spraberry/Dean Submarine-Fan Sandstone | 1,287.1 |
| 118 | Bone Spring Basinal Sandstone and Carbonate | 70.7 |
| 117 | Leonard Restricted Platform Carbonate | 3,297.2 |
| 116 | Abo Platform Carbonate | 541.5 |
| | ***Wolfcampian*** | |
| 115 | Wolfcamp/Leonard Slope and Basinal Carbonate | 195.0 |
| 114 | Wolfcamp Platform Carbonate | 457.4 |
| | **Pennsylvanian** | |
| 113 | Upper Pennsylvanian and Lower Permian Slope and Basinal Sandstone** | 271.4 |
| 112 | Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate | 2,699.2 |
| 111 | Pennsylvanian Platform Carbonate | 340.5 |
| 110 | Northwest Shelf Upper Pennsylvanian Carbonate | 353.8 |
| 109 | Northwest Shelf Strawn Patch Reef | 69.9 |
| | Pennsylvanian and Lower Permian Reef/Bank* | 92.1 |
| | Upper Pennsylvanian Shelf Sandstone[#] | 7.3 |
| | **Mississippian** | |
| 108 | Mississippian Platform Carbonate | 15.1 |
| | **Devonian** | |
| 107 | Devonian Thirtyone Ramp Carbonate | 110.2 |
| 106 | Devonian Thirtyone Deepwater Chert | 785.9 |
| | **Silurian** | |
| 105 | Wristen Buildups and Platform Carbonate | 888.8 |
| 104 | Fusselman Shallow Platform Carbonate | 356.3 |
| | **Ordovician** | |
| 103 | Simpson Cratonic Sandstone | 103.2 |
| 102 | Ellenburger Karst-Modified Restricted Ramp Carbonate** | 1,487.3 |
| 101 | Ellenburger Selectively Dolomitized Ramp Carbonate[##] | 163.7 |
| | **Total Permian Basin Production** | **28,901.0** |

[#] Not included in play portfolio because most of play is in North-Central Texas geologic province. Production listed here represents only the five reservoirs in the Permian Basin part of the play.

* Not included in play portfolio because most of play is in North-Central Texas geologic province. Production listed here represents only the 10 reservoirs in the Permian Basin part of the play.

** Includes all reservoirs in this play, including ones in North-Central Texas geologic province.

[##] Does not include approximately 21 MMbbl of production from Ellenburger reservoir at Big Lake field. All production from Big Lake field is assigned to the Grayburg by the RRC.

Table 2. Cumulative production of oil plays in the Permian Basin, ranked by production. Production is through December 31, 2000.

| Oil plays | Cum. prod. (MMbbl) |
|---|---|
| Northwest Shelf San Andres Platform Carbonate | 3,969.3 |
| Leonard Restricted Platform Carbonate | 3,297.2 |
| Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate | 2,699.2 |
| San Andres Platform Carbonate | 2,151.3 |
| Artesia Platform Sandstone | 1,855.4 |
| San Andres Karst-Modified Platform Carbonate | 1,567.1 |
| Ellenburger Karst-Modified Restricted Ramp Carbonate | 1,487.3 |
| Spraberry/Dean Submarine-Fan Sandstone | 1,287.1 |
| Grayburg Platform Carbonate | 1,271.2 |
| Wristen Buildups and Platform Carbonate | 888.8 |
| Upper San Andres and Grayburg Platform Mixed—Central Basin Platform Trend | 809.0 |
| Upper San Andres and Grayburg Platform Mixed—Artesia Vacuum Trend | 796.4 |
| Devonian Thirtyone Deepwater Chert | 785.9 |
| Eastern Shelf San Andres Platform Carbonate | 706.9 |
| San Andres/Grayburg Lowstand Carbonate | 681.1 |
| Grayburg Platform Mixed Clastic/Carbonate | 669.7 |
| Abo Platform Carbonate | 541.5 |
| Wolfcamp Platform Carbonate | 457.4 |
| Fusselman Shallow Platform Carbonate | 356.3 |
| Northwest Shelf Upper Pennsylvanian Carbonate | 353.8 |
| Delaware Mountain Group Basinal Sandstone | 351.9 |
| Pennsylvanian Platform Carbonate | 340.5 |
| Grayburg High-Energy Platform Carbonate—Ozona Arch | 298.4 |
| Upper Pennsylvanian and Lower Permian Slope and Basinal Sandstone** | 271.4 |
| Wolfcamp/Leonard Slope and Basinal Carbonate | 195.0 |
| Queen Tidal-Flat Sandstone | 179.6 |
| Ellenburger Selectively Dolomitized Ramp Carbonate[##] | 163.7 |
| Devonian Thirtyone Ramp Carbonate | 110.2 |
| Simpson Cratonic Sandstone | 103.2 |
| Pennsylvanian and Lower Permian Reef/Bank* | 92.1 |
| Bone Spring Basinal Sandstone and Carbonate | 70.7 |
| Northwest Shelf Strawn Patch Reef | 69.9 |
| Mississippian Platform Carbonate | 15.1 |
| Upper Pennsylvanian Shelf Sandstone[#] | 7.3 |
| **Total Permian Basin Production** | **28,901.0** |

** Includes all reservoirs in this play, including ones in North-Central Texas geologic province.

* Not included in play portfolio because most of play is in North-Central Texas geologic province. Production listed here represents only the 10 reservoirs in the Permian Basin part of the play.

\# Not included in play portfolio because most of play is in North-Central Texas geologic province. Production listed here represents only the five reservoirs in the Permian Basin part of the play.

\## Does not include approximately 21 MMbbl of production from Ellenburger reservoir at Big Lake field. All production from Big Lake field is assigned to the Grayburg by the RRC.

(1992), Holtz (1993), Holtz and others (1993), New Mexico Bureau of Mines and Mineral Resources (1993), Ruppel and Holtz (1994), and Dutton and others (2000) provided the foundation on which the play assessment was based.

Some plays extend from the Permian Basin east into North-Central Texas. So that truncating plays can be avoided, those that occur mainly in the Permian Basin will be presented in their entirety, even if some of the reservoirs on the east side of the play actually occur in counties in the North-Central Texas geologic province. Plays that occur mainly in North-Central Texas are not included in this project, even if a few of the reservoirs within the play are in the Permian Basin. However, so that cumulative production for the Permian Basin can be totaled, reservoirs having production of >1 MMbbl ($1.59 \times 10^5$ $m^3$) that are assigned to a North-Central Texas play but occur in Permian Basin counties will be identified in a separate table in the final database compilation. These reservoirs are in the Pennsylvanian/Lower Permian Reef/Bank play and the Upper Pennsylvanian Shelf Sandstone play in North-Central Texas.

### *Play Designation of Reservoirs*

A total of about 1,000 reservoirs in Texas and 300 reservoirs in New Mexico had produced >1 MMbbl ($1.59 \times 10^5$ $m^3$) of oil through 2000. During the second year of the project, assignment of each of these reservoirs to a play was finalized as more information about the reservoirs was acquired. Reservoirs were assigned to plays on the basis of productive stratal unit (formation), depositional setting, tectonic and structural location within the Permian Basin, reservoir lithology, postdepositional karstification, and trapping mechanism of the reservoir. Reservoir assignments are listed, by play, in tables 3 through 36. Names listed in the tables are official field and reservoir names designated by the Railroad Commission of Texas (RRC) or the Oil Conservation Division (OCD) of the New Mexico Energy, Minerals and Natural Resources Department. In some cases the official reservoir name that was assigned is now interpreted as not being accurate. For example, Moonlight (Mississippian) reservoir in Midland County, Texas has been assigned to the Pennsylvanian Platform Carbonate play (table 13). Despite its official reservoir name, it has been interpreted as producing from the Pennsylvanian Atoka interval (Candelaria, 1990).

Many reservoirs were initially designated as separate reservoirs by the RRC but subsequently transferred into another reservoir. In this report, cumulative production is listed only under the final reservoir name (as of 2000) into which one or more other reservoirs had been transferred. Reservoirs that had other reservoirs transferred into them are highlighted by gray shading in the play tables (tables 3 through 36). The cumulative production value listed for these reservoirs represents total production, including production both before and after the reservoirs were combined.

This method of reporting differs from that of the RRC in its annual reports. RRC reports list production from a reservoir from the time of discovery until it was transferred into another reservoir. Once the reservoir was combined with another, production from the original reservoir continues to be listed year after year, never increasing because all new production is assigned to the new reservoir. We chose not to follow this method because some production that should be reported as part of the total production from a reservoir would be lost if the reservoir had not produced >1 MMbbl ($1.59 \times 10^5$ $m^3$) before it was transferred into another reservoir.

An example should help clarify this compilation method. Conger (Penn) reservoir in Glasscock County is listed in the 2000 *Oil & Gas Annual Report* (Railroad Commission of

Texas, 2001) as having produced 19,249,341 bbl ($3.06 \times 10^6$ $m^3$) of oil through 2000. In table 15, however, Conger (Penn) is listed as having produced 20,406,213 bbl ($3.24 \times 10^6$ $m^3$). This difference occurs because three other reservoirs were transferred into Conger (Penn)—Big Salute (Canyon), Conger (Canyon), and Conger (Cisco). Big Salute produced 872,144 bbl ($1.39 \times 10^5$ $m^3$) of oil from the time it was discovered in 1974 until it was transferred into Conger (Penn) in 1978. Conger (Canyon) and Conger (Cisco) reservoirs produced 49,631 and 235,127 bbl ($7.89 \times 10^3$ $m^3$ and $3.74 \times 10^4$ $m^3$), respectively, before they were transferred into the Conger (Penn) reservoir. Because the goal of this report is to show total production from major oil reservoirs, we have added production from these three reservoirs to the total shown for Conger (Penn). Otherwise, this production would not have been included because none of these three reservoirs produced >1 MMbbl ($1.59 \times 10^5$ $m^3$) before being transferred into Conger (Penn).

Assignment of reservoirs to one of the 27 plays in Texas was based primarily on information in hearing files of the RRC and publications of the BEG, the West Texas Geological Society, and the Permian Basin Section SEPM. Field summaries published by the Bureau of Economic Geology (1957) and the West Texas Geological Society (1982, 1987, 1990, 1994, 1996) and previous studies by Holtz and others (1993) and Dutton and others (2000) were particularly helpful.

Reservoirs in New Mexico were also assigned to plays on the basis of previous studies and published work. Information on reservoir lithology was obtained primarily from field summaries published by the Roswell Geological Society (Roswell Geological Society, 1956, 1960, 1967, 1977, 1988, 1995). Major sources of data are well records, sample descriptions, and logs on file at the Subsurface Library of the NMBGMR. Descriptions of some reservoirs and plays have been published (LeMay, 1960, 1972; Malek-Aslani, 1985; Gawloski, 1987; Grant and Foster, 1989; New Mexico Bureau of Mines and Mineral Resources, 1993; Baldonado and Broadhead, 2002). Data on depositional environments of reservoirs were obtained from published studies. Especially important were the works of LeMay (1960), Milner (1978), Wright (1979), Presley and McGillis (1982), Malek-Aslani (1985), Wiggins and Harris (1985), Cys (1986), Ward and others (1986), Gawloski (1987), Mazzullo and Reid (1987), Harms and Williamson (1988), Kerans (1988), Elliott and Warren (1989), Grant and Foster (1989), Saller and others (1989), Verseput (1989), Malisce and Mazzullo (1990), Mazzullo (1990), Borer and Harris, (1991a, b), Keller (1992), New Mexico Bureau of Mines and Mineral Resources (1993), Montgomery and others (1999), and Baldonado and Broadhead (2002).

### *Mapping Reservoirs in GIS*

Mapping the 1,300 oil reservoirs in the Permian Basin having cumulative production of >1 MMbbl ($1.59 \times 10^5$ $m^3$) was completed this year. Different procedures were used for reservoirs in Texas and New Mexico because of the different data available in each state. Final ArcView™GIS files were produced that illustrate all reservoirs in each play, play boundaries, state and county lines, legal land grid, and boundaries of major geologic elements that relate to play trends and production.

#### **Texas**

Numerous data sources were utilized for mapping reservoirs in Texas. The initial dataset accessed was from Landmark Graphic's Datastar™ product. The Datastar™ product, compiled from data maintained by Whitestar Corporation, provides oil and gas well spots, land grids, and cultural information for the entire U.S. If an area is outlined, all these data are extracted from Datastar™ in a GIS shapefile format. These shapefiles are then imported into the ArcView™GIS software package. Imported shapefiles store information including API numbers, latitude, longitude, well name, and field/reservoir name, as well as numerous other data columns. Of particular interest is the field/reservoir name of each well; this name is used to classify the location of wells in a reservoir. Through the field/reservoir name, shapefiles were refined by deletion of all reservoirs that did not compose the play of interest. In addition, Texas abstract and county-line shapefiles were available for display, along with well locations.

After initial mapping of reservoirs, other data sources were used to verify locations by comparing mapped reservoirs with well-location data obtained from DrillingInfo.com, Inc. Well location and production data are provided by DrillingInfo.com, and a search based on field/reservoir name yields a spotting of wells. Wells without any production were deleted, and the display of well locations was compared with the initial mapping of reservoirs. If discrepancies were found, corrections were made to the shapefile. Other nondigital maps that were used for data verification include BEG oil and gas atlases (Galloway and others, 1983; Kosters and others, 1989), Geomap Company Permian Basin Executive Reference Map (Geomap Company, 1998), Structurmaps, Ltd., Permian Basin structure map (Structurmaps Ltd., 1970), and Midland Map Company Permian Basin regional base map (Midland Map Company, 1997). Well production was compared using Lasser Inc.'s Texas production database (Lasser Texas Production CD, 2003), as well as RRC production reports (Railroad Commission of Texas, 2001).

Actual mapping of reservoir outlines was done entirely in ArcView GIS using Texas abstract and county-line shapefiles as the base map and the previously extracted well-location shapefile as the basis for the geographic location of each reservoir outlined. Each play mapped has a well-location shapefile that has an associated point-attribute table (PAT) stored as a dBASE file containing detailed information about each point feature. Records in the PAT can be sorted and then selected on the basis of field/reservoir name, thus isolating the cluster of wells that make up a particular reservoir. In order to keep the distance from well locations to the reservoir boundary consistent for each reservoir mapped, selected wells were buffered by 0.5 mi, creating a temporary shapefile of polygons that was used as a guide in creating the actual reservoir outline.

For each play, a new shapefile of reservoir outlines was created using the temporary shapefile of buffered wells as a guide. With each polygon, or reservoir, that was added to the new shapefile, a new record was added to the associated attribute table. Whenever a shapefile is edited or added to in ArcView, the associated attribute table is also editable. This feature enables the reservoir outlines added to be given code names, which can later be linked to the complete reservoir data table. After all reservoirs in a given play were drawn and coded, a map was printed for verification.

Once the printed maps of reservoirs were checked, necessary edits were made to the shapefile within ArcView. When final play designations were completed this year, reservoirs that were determined to be in the wrong play were reassigned and linked to the new play. The final reservoir shapefile for each play contains the geographic location of each reservoir (figs. 5 through 36) and all associated information within the linked dBASE data table, including RRC unique reservoir number (RRC RESN), RRC district (RRC), field name (FLDNAME), reservoir name (RESNAME), state, county, discovery year (DISCYR), depth in feet to top of the reservoir (DEPTHTOP), 2000 production (2000 PROD) in barrels, and cumulative production (CUMPROD) in barrels through 2000 (tables 3 through 36). Some tables also list subplays. The final GIS product of this process is an ArcView project file containing the base maps, the newly created series of play-specific reservoir shapefiles, and the play-boundary shapefile.

Reservoir outlines generated by this process are intended to show the approximate location, size, and shape of each reservoir, but they are not precise boundaries. Reservoir shapes, therefore, should not be used to calculate subsurface reservoir area for accurate volumetric determinations.

**New Mexico**

Those fields with >1 MMbbl ($1.59 \times 10^5$ $m^3$) production were placed into geologic plays. In many cases these play groupings do not match existing New Mexico pool groupings. An entirely new database was created that (1) eliminates all New Mexico pools with <1 MMbbl ($1.59 \times 10^5$ $m^3$) production, (2) reorders the New Mexico pool database to reflect groupings based on newly defined play types, and (3) adds production data by pool. This new database collection was entered into ArcView GIS using pool shapefiles outlining field boundaries copied from the preexisting New Mexico pools project. Each PUMP-defined play can be displayed separately or in combination with any or all other plays. The GIS data tables for New Mexico contain the following headers: field name (FLDNAME), pool (reservoir) name (RESNAME), state, county, discovery year (DISCYR), depth in feet to top of the reservoir (DEPTHTOP), 2000 production (2000 PROD) in barrels, and cumulative production (CUMPROD) in barrels through 2000 (tables 3 through 36). Some tables also list subplays.

**Play Boundaries**

GIS play maps from Texas and New Mexico were merged to form digital data files, or shapefiles, of each play in the Permian Basin. A set of page-size maps showing the reservoirs in each play and geologic features of the basin was created, and play boundaries were drawn on hard copies of the maps. Play boundaries were drawn to include areas where fields in that play occur but are <1 MMbbl ($1.59 \times 10^5$ $m^3$) of cumulative production. These areas should be considered as part of the play, even if no reservoirs from the play have yet to produce >1 MMbbl ($1.59 \times 10^5$ $m^3$). Maps with the play boundaries drawn on them were scanned, and play boundaries were digitized, edited, and finalized for inclusion in the GIS database.

The final page-size play maps, showing reservoirs in the play, play boundaries, and geologic features, are included in this report (figs. 5 through 36). These maps are useful in depicting the overall trend of the play and distribution of reservoirs. Reservoir names could not be shown on the page-size maps because of space limitations. In the final project report, the GIS project will be included on a CD, and field names will be shown in ArcView play maps. In addition, pdf versions of the maps will be included on the CD, which will also have field names.

***Play Summaries***

Summaries about each play are in progress; at the end of 2003 about half the 32 play summaries had been written. In the final report, each play will be described using information from published literature and illustrated by selected appropriate diagrams. Play descriptions will include key characteristics of the play, summarize and illustrate the reservoir heterogeneity that characterizes reservoirs in the play, and describe preferred management practices that have been successfully used in the play.

### ***Production Trends***

Many of the oil fields in the Permian Basin are mature, having been discovered in the 1950's and 1960's. During the past year, production for calendar-year 2000 was added to the data tables for all reservoirs in the database (tables 3 through 36). The 2000 production data make it easy to see which reservoirs are still producing significant volumes of oil, versus those that are no longer producing.

Analysis of production data indicates that the Permian Basin remains a major oil-producing region. Oil production from significant-sized reservoirs in the Permian Basin having cumulative production of >1 MMbbl ($1.59 \times 10^5$ m$^3$) was 301.4 MMbbl ($4.79 \times 10^7$ m$^3$) in 2000. The largest producing reservoir in 2000 was Wasson (22.9 MMbbl [$3.64 \times 10^6$ m$^3$]) in Yoakum County, Texas, in the Northwest Shelf San Andres Platform Carbonate play. Six reservoirs—Wasson (San Andres), Spraberry (Trend Area), Slaughter (San Andres), Yates (San Andres), Levelland (San Andres), and Seminole (San Andres) produced more than 10 MMbbl ($1.59 \times 10^6$ m$^3$) in 2000. All of these reservoirs are in Texas and are very mature, discovered prior to 1952. The top four oil-producing plays in 2000 were the Northwest Shelf San Andres Platform Carbonate play (50.7 MMbbl [$8.06 \times 10^6$ m$^3$]), Leonard Restricted Platform Carbonate play (49.9 MMbbl [$7.93 \times 10^6$ m$^3$]), Spraberry/Dean Submarine Fan Sandstone play (27.6 MMbbl [$4.39 \times 10^6$ $m^3$]), and the San Andres Platform Carbonate play (26.4 MMbbl [$4.20 \times 10^6$ $m^3$]).

Cumulative Permian Basin production through 2000 was 28.9 Bbbl ($4.59 \times 10^9$ $m^3$) (tables 1, 2). The largest single reservoir was Wasson (1.84 Bbbl [$2.93 \times 10^8$ $m^3$]); three other reservoirs had cumulative production >1 Bbbl ($1.59 \times 10^8$ $m^3$) through 2000 (Yates, Kelly-Snyder, and Slaughter). The top four plays in cumulative production are the Northwest Shelf San Andres Platform Carbonate play (3.97 Bbbl [$6.31 \times 10^8$ $m^3$]), the Leonard Restricted Platform Carbonate play (3.30 Bbbl [$5.25 \; 10^8$ $m^3$]), the Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play (2.70 Bbbl [$4.29 \times 10^8$ $m^3$]), and the San Andres Platform Carbonate play (2.15 Bbbl [$3.42 \times 10^8$ $m^3$]).

Approximately 80 percent of all reservoirs in the Permian Basin having cumulative production of >1 MMbbl ($1.59 \times 10^5$ $m^3$) were discovered prior to 1970, with the greatest number of discoveries occurring between 1951 and 1960. Approximately 80 percent of the reservoirs produce from depths of less than 10,000 ft (3,048 m), average depth being 7,071 ft (2,155 m). The shallowest production occurred at 500 ft (152 m) (Toborg), and the deepest occurred at 13,939 ft (4,249 m) (Nolley [Ellenburger]). All of the deepest reservoirs (>13,800 ft [4,206 m]) were in the Ellenburger Karst-Modified Restricted Ramp Carbonate play. The Guadalupian Series has the largest number of plays (13), the largest annual production in 2000 (158.8 MMbbl [$2.52 \times 10^7$ $m^3$]), and the largest cumulative production (15.3 Bbbl [$2.43 \times 10^9$ $m^3$]). Leonardian- and Pennsylvanian-age plays were ranked next in terms of production. Carbonate reservoirs have produced 24.1 Bbbl of oil, compared with 4.1 Bbbl from clastic reservoirs and 0.8 Bbbl from chert reservoirs.

Additional analysis of production trends by plays is nearly completed.

### *Reservoir Characterization of Key Reservoirs*

Reservoir-characterization studies of key reservoirs from three of the largest or most active plays in the Permian Basin are being conducted as part of this project. The reservoirs being studied are Kelly-Snyder (SACROC unit) in the Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play, Fullerton in the Leonard Restricted Platform Carbonate play, and Barnhart (Ellenburger) in the Ellenburger Selectively Dolomitized Ramp Carbonate play (fig. 4). The geologic heterogeneity in these reservoirs is being investigated so that production constraints that would apply to other reservoirs in that play can be better understood. For each of these detailed reservoir studies, technologies for further, economically viable exploitation are being investigated. The information on improved practices in reservoir development will be incorporated into the play portfolio.

#### Barnhart

Barnhart field in Reagan County, Texas (fig. 4), produces from the Ellenburger Group and is part of the Ellenburger Selectively Dolomitized Ramp Carbonate play. The play is located along the southern and eastern margins of the Midland Basin, in the area of the Ozona Arch and the Eastern Shelf (figs. 2, 5). This reservoir group consists of 31 reservoirs that had produced >1 MMbbl ($1.59 \times 10^5$ $m^3$) of oil through 2000 (table 3); cumulative production from the play was 163.7 MMbbl ($2.60 \times 10^7$ $m^3$) (table 1). The carbonates of this play were deposited in a mid- to outer ramp setting (Holtz and Kerans, 1992); their present composition is mainly dolostone, with lesser amounts of limestone (Holtz and Kerans, 1992; Hunt, 2000). Reservoirs are composed of one or more upward-shallowing sequences that contain peloid-ooid packstonegrainstone at the base, overlain by burrowed wackestones and cryptalgal laminated dolostones (Holtz and Kerans, 1992). Early tidal-flat dolomitization by seepage reflux and late-burial dolomitization was localized in this middle- to outer-ramp setting (Holtz and Kerans, 1992).

Ellenburger rocks in this play experienced several episodes of exposure, karstification, and fracturing. Porosity development appears to be controlled by a combination of primary depositional facies distribution, localized karsting, fracturing, and selective dolomitization (Tyler and others, 1991; Combs and others, 2003). Much of the porosity is secondary intercrystalline porosity that resulted from selective late-stage burial dolomitization of grainstones (Kerans, 1990; Kupecz and Land, 1991; Holtz and Kerans, 1992). Fractures probably provided pathways for migrating dolomitizing fluids. Two sets of fractures, oriented NE-SW and NW-SE, have been identified, but the NW-SE set is dominant in most horizons (Gomez and others, 2001).

A new technique for recovering additional oil from fields in this play is being tested in Barnhart field in Reagan County. Barnhart field is a structural trap having four-way closure; Wolfcamp shale forms the top seal (Hunt, 2000). The reservoir is at a depth of about 9,000 ft (~2,743 m). Discovered in 1941, Barnhart field has produced 16.4 MMbbl ($2.61 \times 10^6$ m$^3$) of an estimated 115 MMbbl ($1.83 \times 10^7$ m$^3$) OOIP (Galloway and others, 1983; Tyler and others, 1991). The poor recovery efficiency at Barnhart is due to the loss of reservoir energy caused by pressure decline in the solution-gas-drive reservoir. Reservoir pressure has declined from its original 3,920 psi to 1,600 psi (27 MPa to 11 MPa). Current production from the field is <21,000 bbl ($3.34 \times 10^3$ m$^3$) per year from six active wells. Secondary recovery has never been implemented in the field owing to the high cost of drilling required.

High-pressure air injection (HPAI), a tertiary oil recovery technology, is being tested in Barnhart field. HPAI creates downhole combustion of oxygen and oil, producing flue gas (nitrogen and carbon dioxide) that serves to repressurize and flood the reservoir. The HPAI process pumps air into the reservoir under high temperature and pressure. The oxygen causes combustion of 4 to 5 percent of the residual oil in the depleted reservoir (J. Olson, personal communication, 2003). Oil recovery is improved because the process (1) lowers the viscosity of the oil, (2) creates thermally generated microfractures in the reservoir, and (3) increases the reservoir pressure. An advantage of HPAI technology is that it requires fewer injectors than do more conventional secondary and tertiary recovery operations.

The HPAI process has been used mainly in low-permeability reservoirs and has been successful in reservoirs of the Red River Formation (Ordovician dolostones and limestones) in the Williston Basin of South Dakota, North Dakota, and Montana (Kumar and others, 1995; Fassihi and others, 1996; Watts and others, 1997; Glandt and others, 1998), but it is being tried for the first time in the Permian Basin in Barnhart field (Ruppel, personal communication, 2003). A pilot was conducted that increased production to three to five times the rates observed before HPAI, and now a larger demonstration is planned. The goal of combining HPAI with an array of vertical and horizontal injection and producer wells is to restore energy to this pressure-depleted reservoir and thus recover large additional volumes of the remaining resource.

If HPAI technology is successful in Barnhart field, it can be applied to other reservoirs in the Ellenburger Selectively Dolomitized Ramp Carbonate play, as well as reservoirs in the Ellenburger Karst-Modified Restricted Ramp Carbonate play. The Ellenburger plays contain a resource of about 900 MMbbl ($1.43 \times 10^8$ m$^3$) of remaining mobile oil that could be targeted for application of HPAI in the Permian Basin.

## SACROC

Detailed reservoir studies are being conducted of the SACROC unit in the Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play. This large play has produced 2,699.2 MMbbl ($4.29 \times 10^8$ $m^3$) from 70 reservoirs within the Horseshoe Atoll, a nonreefal, isolated, carbonate platform system in the northern Midland Basin (fig. 16, table 14). Production is from stacked Strawn through Wolfcamp limestones and dolomitic limestones that aggraded from the floor of the basin in a northward-opening arc (Galloway and others, 1983). Deposition of the Horseshoe Atoll began on a broad Strawn carbonate platform that lay basinward of the clastic deposition in North-Central Texas (Vest, 1970). Isolated reservoirs produce from Strawn carbonates in Garza and Borden Counties, where carbonate mounds developed on local structural highs in the underlying Ellenburger (F. J. Lucia, personal communication, 2003). During lowstands, these mounds were subaerially exposed, and meteoric diagenesis developed moldic porosity.

Through time, isolated carbonate knolls and pinnacles evolved from the laterally continuous carbonate platform. Subsidence of the Midland Basin led to repeated backstepping of the platform from Strawn through Canyon and Cisco time, and considerable relief developed on the vertically accreting pinnacles (Vest, 1970; Galloway and others, 1983; Kerans, 2001b). Early-middle Canyon high-frequency eustatic shifts produced systematic upward-coarsening, tight-to-porous cycles that cause strongly layered reservoir heterogeneity. In the later Canyon and Cisco, high-frequency cycles show higher amplitude eustatic shifts and cycle-scale karstification (Kerans, 2001b). The lithofacies that compose the Horseshoe Atoll include sponge-algal-bryozoan and phylloid-algal-mound wackestones and boundstones; crestal tidal-flat and peritidal wackestones; shoal and shoreface grainstones; shelf crinoidal wackestones; and debris-flow lithoclast packstones and wackestones (Galloway and others, 1983; Schatzinger, 1988). Prevailing winds and ocean currents influenced the distribution of carbonate facies (Walker and others, 1991; 1995). The percentages of grainstones are highest in the northeast, windward part of the platform, whereas mud-dominated facies are predominant to the southwest (Schatzinger, 1988; Walker and others, 1991; 1995).

Because the Horseshoe Atoll was deposited under icehouse conditions during a time of peak glaciation, there were high-frequency oscillations of sea level by 65 to 460 ft (20 to 140 m) (Reid and Reid, 1999; Kerans, personal communication, 2002). Fresh water percolated through the carbonate platform during sea-level lowstands, resulting in the development of caves, karst, and fractures, as well as fabric-selective moldic porosity (Reid and Reid, 1991; Mazzullo, 1997; Kerans, personal communication, 2002). Prolonged exposure in the middle Cisco terminated platform growth locally (Kerans, 2001b). Exposure and erosion at sequence boundaries produced a series of truncation surfaces, with local development of lowstand/transgressive wedges on the flanks of the platform. The Horseshoe Atoll was buried beneath prograding slope and basin clastic sediments; Wolfcamp shales provide the top and lateral seals.

Detailed reservoir studies have been conducted of the SACROC unit (Kerans, 2001a, b; Raines and others, 2001). The SACROC (Scurry Area Canyon Reef Operators Committee) unit, which incorporates nearly all of Kelly-Snyder field and part of Diamond M field, is the largest producing unit of the Horseshoe Atoll play. (Horseshoe Atoll production is listed in table 14 under RRC reservoir names and not by units. Thus, production from the SACROC unit is listed under the Kelly-Snyder reservoir.) Since discovery in the 1940's, primary, secondary, and tertiary recovery activities in the SACROC unit have been extensive, including the first $CO_2$ flood in west Texas.

The northern part of the SACROC unit is depositionally and diagenetically complex (Raines and others, 2001). In this area, the 700-ft- (213-m-) thick reservoir column consists of Canyon and Cisco carbonates that change from layered cyclic, open-shelf, subtidal cycles having minimal diagenetic overprint (lower and mid-Canyon) to high-energy, shoal-related cycles having frequent exposure surfaces (upper Canyon–lower Cisco) and increased evidence of cycle and sequence-scale erosion (Kerans, 2001a, b). Early Cisco deposition was characterized by dramatic changes in depositional style, including growth of pinnacle reefs and formation of complex, fractured, muddy, crinoid-dominated facies that resemble Waulsortian deeper-water buildups (Wilson, 1975). Porosity in the SACROC unit ranges from 4.0 to 20.0 percent and averages 9.8 percent; permeability ranges from 1 to 1,760 md (1 to $1{,}737 \times 10^{-3}$ $\mu m^2$) and averages 19 md ($19 \times 10^{-3}$ $\mu m^2$) (Wingate, 1996).

Seismic data were used extensively in construction of the stratigraphic framework of the SACROC unit and helped us make significant advances in our understanding of the stratigraphic architecture, which were not possible with logs alone. The end result of this modeling is a 3-D volume that is drastically different from that previously generated. Huge volumes of the platform previously modeled as laterally continuous layers can be shown to consist of erosionally generated slope wedges associated with major icehouse eustatic sea-level falls. Complex promontories and reentrants similar to the present-day Bahama platform mark the edges of the field, and large windward-leeward asymmetries control reservoir-quality distribution. Muddy zones are extensive across the entire reservoir and have a large impact on flow (Kerans, personal communication, 2002). This modern model of the northern part of the SACROC unit should greatly aid ongoing efforts in enhanced recovery using water-alternating-with-gas (WAG) and related practices. An estimated 700 MMbbl ($1.11 \times 10^8$ m$^3$) of unrecovered mobile oil remains in the Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play (Tyler and Banta, 1989).

The SACROC unit has undergone $CO_2$ flooding since 1972, but recent modifications to the $CO_2$-flood design in the central part of the unit have increased production by approximately 6,000 bbl/day ($9.54 \times 10^2$ m$^3$/day) (Raines and others, 2001). Unit production in 2002 was at an 8-year high of 11,000 bbl/day ($1.75 \times 10^3$ m$^3$/day) (Raines, 2002). Changes to the flood include (Raines and others, 2001)

(1) Targeting oil that is residual to earlier waterflooding instead of attempting to recover oil unswept by the waterflood.

(2) Ensuring that the pressure inside areas to be flooded is above minimum miscibility pressure before $CO_2$ injection begins. If water is injected to raise the pressure in the area, it is injected below the parting pressure so that the formation is not fractured.

(3) Using smaller, injection-centered 5-spot patterns of about 40 acres ($1.62 \times 10^5$ m$^2$).

(4) Containing the $CO_2$ project area by a row of water-curtain wells beyond the producers to reduce $CO_2$ migration outside the pattern. Mass balance analysis indicated that approximately 50 percent of injected $CO_2$ was being lost out of the intended patterns.

(5) Increasing volume of $CO_2$ injected to approximately 70 percent of the hydrocarbon pore volume in the pattern area.

(6) Using a multiphase Water Alternating with Gas (WAG) injection scheme instead of one or two continuous $CO_2$ slugs. WAG injection reduces costs and slows down the $CO_2$ flood front to delay breakthrough.

(7) Acquiring 4-D (time lapse) cross-well seismic data to track $CO_2$ in the reservoir by comparing seismic velocity profiles between wells after less dense $CO_2$ has replaced oil and water (Raines, 2003).

The revised $CO_2$ flood has arrested production decline in the SACROC unit. In 2001 the central area undergoing the $CO_2$ flood contributed about 75 percent of the total unit production (Raines and others, 2001). Many of the lessons learned at the SACROC unit should be applicable to $CO_2$ floods both in other reservoirs in this play and in carbonate reservoirs in other plays in the Permian Basin. $CO_2$ floods are also being conducted in other fields producing from the Horseshoe Atoll, including Salt Creek, Cogdell, Diamond -M-, the Sharon Ridge unit of Diamond -M- field (L. S. Melzer, personal communication, 2003), and Cogdell field (S. Pennell, personal communication, 2002). The Phase 1 $CO_2$ flood at the north end of Cogdell field started in late 2001 and has increased production from an average of 369 bopd in 2001 to 2,500 bopd in November, 2002.

**Fullerton**

The third reservoir-characterization study is being done on the Clear Fork reservoir of Fullerton field, Andrews County, the largest reservoir in the Leonard Restricted Platform Carbonate play (figs. 4, 21). This reservoir was discovered in 1941 and had produced nearly 306 MMbbl ($4.87 \times 10^7$ m$^3$) of oil through 2000 (table 19).

The Leonard Restricted Platform Carbonate play consists of 183 reservoirs that had produced >1 MMbbl ($1.59 \times 10^5$ m$^3$) of oil through 2000; cumulative production from the play was 3,295 MMbbl ($5.25 \times 10^8$ m$^3$) (tables 1, 19). Reservoirs of Leonardian age on the Central

Basin Platform, Northwest Shelf, and Eastern Shelf are included in this play, with the exception of Abo reservoirs on the Northwest Shelf. The Leonard Restricted Platform Carbonate play includes rocks assigned to the Wichita (also known as the Wichita/Albany or Abo), Clear Fork, Tubb, Glorieta (also known as the San Angelo), and locally to the Holt (fig. 3). With the exception of the Holt reservoir, lower San Andres rocks in the uppermost Leonardian are not included in this play. The Clear Fork Group is separated into lower and upper Clear Fork units by the Tubb Formation, a zone of silty carbonate. The top of the Clear Fork is separated from the overlying San Andres Formation by the Glorieta silty carbonate. The entire interval is productive, but the lower Clear Fork has had the greatest production (Montgomery, 1998).

The Leonardian stratigraphic section is approximately 2,500 to 3,000 ft (760 to 900 m) thick, and the reservoirs are typically developed at depths of between 5,600 and 7,800 ft (1,700 and 2,380 m) (Tyler and others, 1991). Most of the fields in the play produce from large asymmetric anticlines developed over basement structures (Montgomery, 1998). Reservoir net pay in the play ranges widely, from 5 to 360 ft (1.5 to 110 m) (Holtz and others, 1992; Montgomery, 1998). Porosity ranges from 3 to 23 percent and averages 11.0 percent; permeability ranges from 0.2 to 30 md ($0.2$ to $30 \times 10^{-3}$ $\mu m^2$) and averages 5 md ($5 \times 10^{-3}$ $\mu m^2$) (Holtz and others, 1992). Leonardian reservoirs contained an estimated 14.5 Bbbl ($2.31 \times 10^9$ $m^3$) of original oil in place (Holtz and others, 1992), approximately 15 percent of the total resource in the Permian Basin, but recovery efficiencies are the lowest among carbonate reservoirs in the Permian Basin (Ruppel and others, 2000).

Leonardian rocks on the Central Basin Platform and Northwest and Eastern Shelves were deposited in restricted, low-energy, depositional conditions that occurred on a shallow-water carbonate platform. Leonardian rocks are dominated by cyclic alternations of peritidal, tidal-flat deposits and shallow-water, subtidal rocks (Ruppel, 1992; Ruppel and others, 1995; Atchley and others, 1999). The Tubb and Glorieta are dominantly composed of siliciclastic-rich, tidal-flat deposits (Ruppel, 2002). High-frequency cycles, averaging about 3 to 6 ft (~1 to 2 m) in thickness, are composed of (1) basal, mud-rich, subtidal rocks; (2) overlying, grain-dominated, subtidal rocks; and (3) cycle-capping, tidal-flat rocks (Ruppel, 1992, 2002; Ruppel and others, 2000). Cycle sets, 20 to 40 ft (6 to 12 m) in thickness, are defined by stacking of high-frequency cycles. These cycle sets, plus local variations in paleotopography, controlled the development of depositional and diagenetic fabrics (Atchley and others, 1999; Ruppel, 2002). Although early diagenesis apparently preserved porosity at cycle tops, petrophysical properties are dominantly related to depositional facies (Ruppel, 2002). Tidal-flat deposits have high porosity but low permeability because their pore structure is dominated by fenestral vugs. The best reservoir quality occurs in grain-dominated, dolomitized, subtidal rocks having high porosity and relatively high permeability and oil saturation associated with intergranular and intercrystalline pores (Atchley and others, 1999; Ruppel, 2002; Jones and others, 2003).

A reservoir-characterization study of Fullerton Clear Fork field (fig. 4), Andrews County, Texas, developed techniques to improve the resolution and predictability of key reservoir properties for construction of more accurate reservoir models. The integration of cycle-stratigraphic (Ruppel, 2003), rock-fabric (Jones and others, 2003), and 3-D seismic data (Zeng and others, 2003) provided a robust basis for distributing reservoir rock and fluid properties (Wang and others, 2003). A cycle-stratigraphic framework for the lower Clear Fork, Wichita, and Abo reservoir intervals at Fullerton field was constructed by integrating information from outcrop analogs in the Sierra Diablo Mountains of west Texas (Ruppel and others, 2000) with more than 13,000 ft (4,000 m) of core from the field.

To create a high-resolution permeability model of Fullerton field, core samples were assigned to a petrophysical class on the basis of fabric, pore type, lithology, and crystal size, and then class specific transforms were used to calculate permeability from wireline-log porosity (Jones and others, 2003). Stratigraphically keyed vertical changes in petrophysical class were mapped throughout a study area within the field, and calculated permeabilities were used to populate a 3-D model that incorporates stratigraphic architecture, rock-fabric data, and petrophysical data. Porosity, permeability, and water saturation were modeled deterministically with a 2,000 ft (610 m) search radius. In general, the lowermost sequence of the lower Clear Fork has the best porosity and permeability. Estimated OOIP for the study area calculated from this model is 185 MMbbl (2.94  $10^7$ $m^3$). Because only 40 MMbbl ($6.36 \times 10^6$ $m^3$) have been produced to date from this area, 145 MMbbl ($2.31 \times 10^7$ $m^3$), or about 80 percent of the OOIP, probably remains. Results of the reservoir characterization have been used to target future infill drilling and possible enhanced oil recovery (EOR) by $CO_2$ flood. Successful application of these new approaches in other Clear Fork reservoirs throughout the Permian Basin will target more than 2.5 Bbbl ($3.97 \times 10^8$ $m^3$) of remaining oil. These techniques may also apply to platform-carbonate reservoirs in other plays.

### *Technology Transfer*

Technology transfer of project results has taken place in several ways during the second year of the project. A poster session about the project, *Play Analysis of Major Oil Reservoirs in the Permian Basin, West Texas*, was presented at the 2003 annual meeting of the American Association of Petroleum Geologists in Salt Lake City, Utah in May. This poster session was also presented at the workshop, New Methods for Locating and Recovering Remaining Hydrocarbons in the Permian Basin, sponsored by the Bureau of Economic Geology, PTTC Texas Region, and University Lands West Texas Operations in Midland, Texas, in May.

Two poster displays were presented at the Annual Meeting of the West Texas Geological Society held in Midland during October 2003. A written paper that accompanies one of the poster presentations (*Play Analysis and Digital Portfolio of Major Oil Reservoirs in the Permian Basin: New Mexico*) was published in the bound volume that accompanied the West Texas Geological Society meeting (Broadhead and Raatz, 2003). The poster *Play Analysis of Major Oil Reservoirs in the Permian Basin, West Texas* was also presented at this meeting, and the abstract was published in the proceedings volume (Dutton and others, 2003c).

An article about the project titled "Permian Basin Play Analysis" was published in the *Class Act Newsletter* in the Summer 2003 issue (Dutton and others, 2003a).

## Conclusions

Good progress has been made on the Permian Basin PUMP project during the past year. Thirty-two plays covering both the Texas and New Mexico parts of the Permian Basin were defined. All ~1,300 reservoirs in the Permian Basin having cumulative production of >1 MMbbl ($1.59 \times 10^5$ $m^3$) of oil were assigned to a play. A reservoir database was established that lists the RRC reservoir number and district (Texas only), official field and reservoir name, year reservoir was discovered, depth to top of the reservoir, production in 2000, and cumulative production through 2000. Some tables also list subplays.

Mapping of the 1,300 significant-sized oil reservoirs in the Permian Basin was completed this year. The mapping of reservoir outlines was done by play in ArcView™GIS. The GIS play maps from Texas and New Mexico were merged to form digital data files, or shapefiles, of each play in the Permian Basin. The final reservoir shapefile for each play contains the geographic location of each reservoir and all associated reservoir information within the linked dBASE data table. Play boundaries were drawn for each play. The final GIS product of this process will be an ArcView project file containing base map, series of play-specific reservoir shapefiles, and play-boundary shapefiles.

In the final play portfolio, each play will be described using information from the published literature and illustrated by selected appropriate diagrams. Summaries about each play are in progress; at the end of the year about half the 32 play summaries had been written. Production analysis of the plays is nearly completed.

Reservoir-characterization studies of key reservoirs from three of the largest or most active plays in the Permian Basin are being conducted. Detailed studies have been made of the following reservoirs: Kelly-Snyder (SACROC unit) in the Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play, Fullerton in the Leonardian Restricted Platform Carbonate play, and Barnhart (Ellenburger) in the Ellenburger Selectively Dolomitized Ramp Carbonate play. We investigated the geologic heterogeneity in these reservoirs to better understand production constraints that would apply to all reservoirs in that play. For each of these detailed reservoir studies, technologies for further, economically viable, exploitation were investigated. The information on improved practices in reservoir development will be incorporated into the portfolio.

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## List of Acronyms and Abbreviations

| | |
|---|---|
| Bbbl | Billion barrels |
| BEG | Bureau of Economic Geology |
| GIS | Geographic Information System |
| HPAI | High-pressure air injection |
| MMbbl | Million barrels |
| NMBGMR | New Mexico Bureau of Geology and Mineral Resources |
| OCD | Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department |
| OOIP | Original oil in place |
| PUMP | Preferred upstream management practices |
| RRC | Railroad Commission of Texas |
| SACROC | Scurry Area Canyon Reef Operators Committee |
| WAG | Water alternating gas |

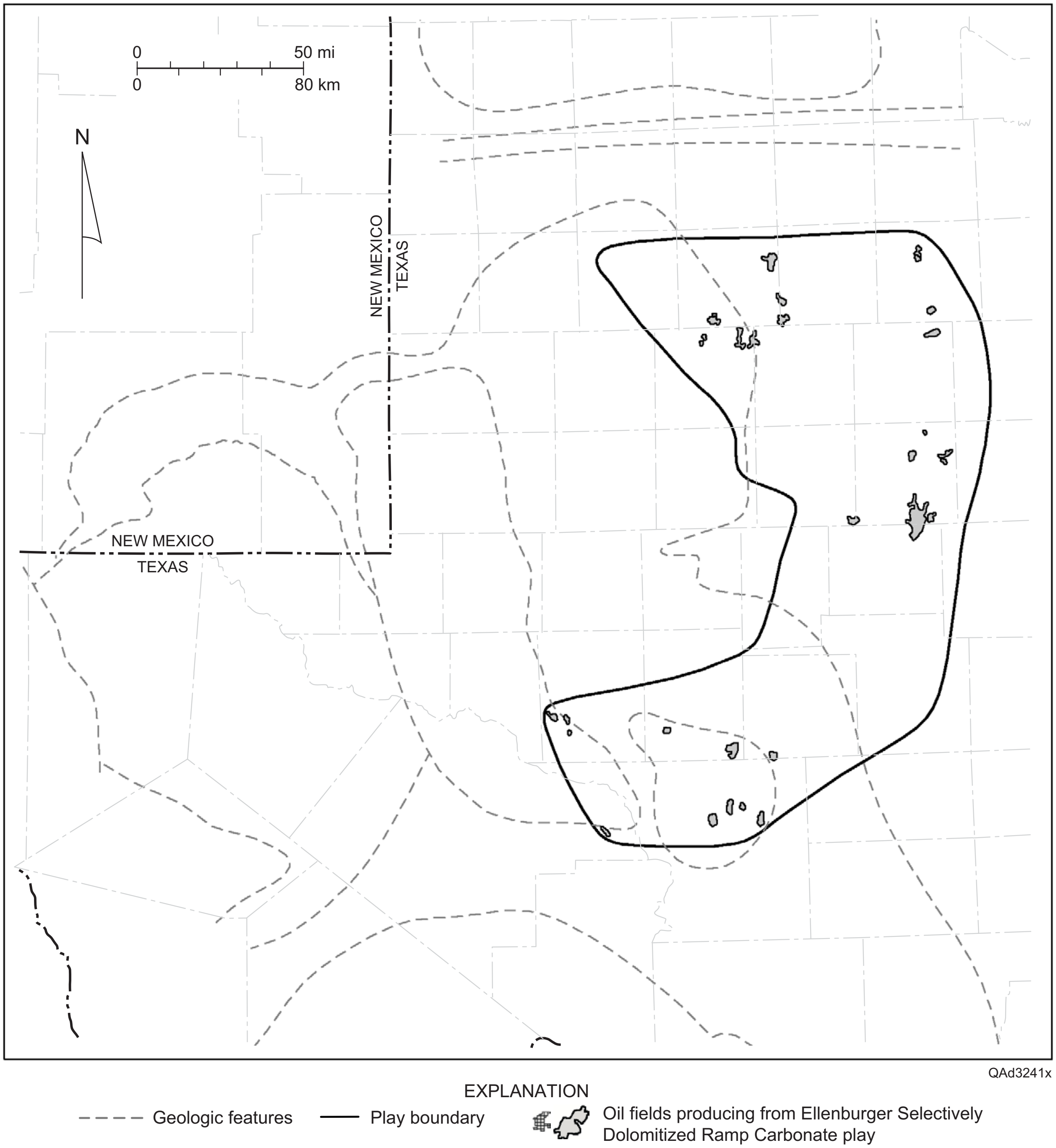


**Figure 5.** Play map for the Ellenburger Selectively Dolomitized Ramp Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

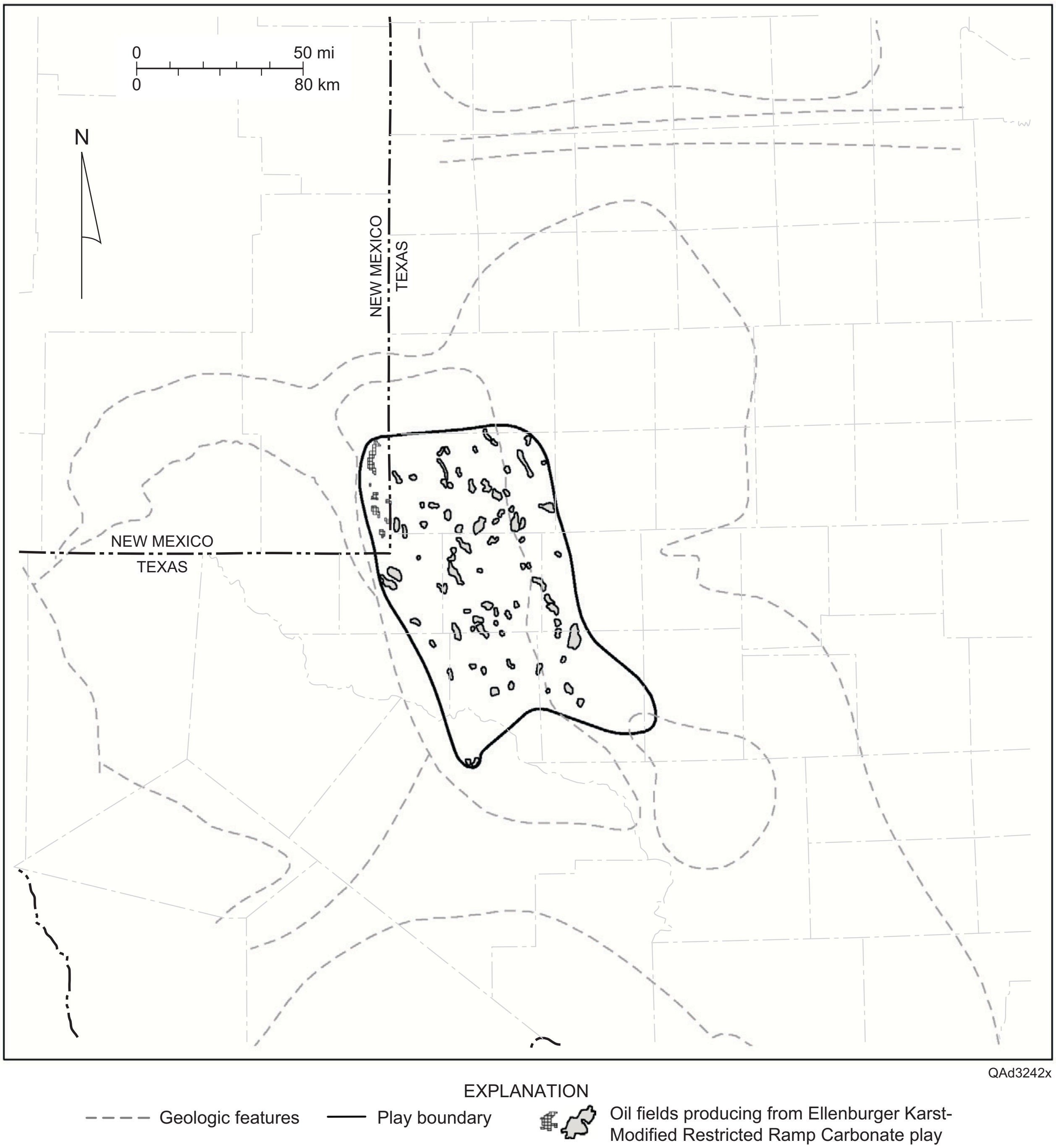


**Figure 6.** Play map for the Ellenburger Karst-Modified Restricted Ramp Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

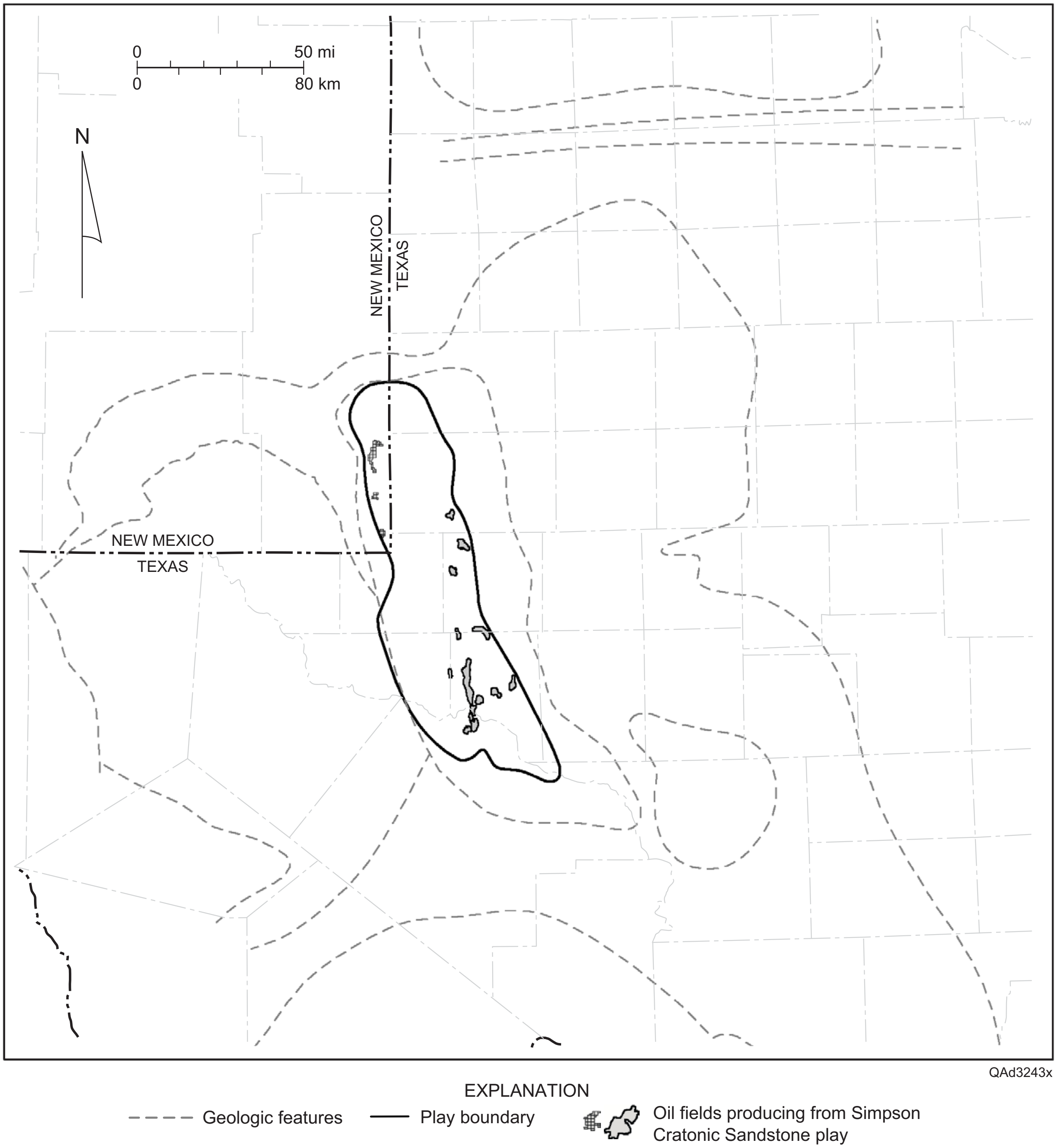


**Figure 7.** Play map for the Simpson Cratonic Sandstone play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

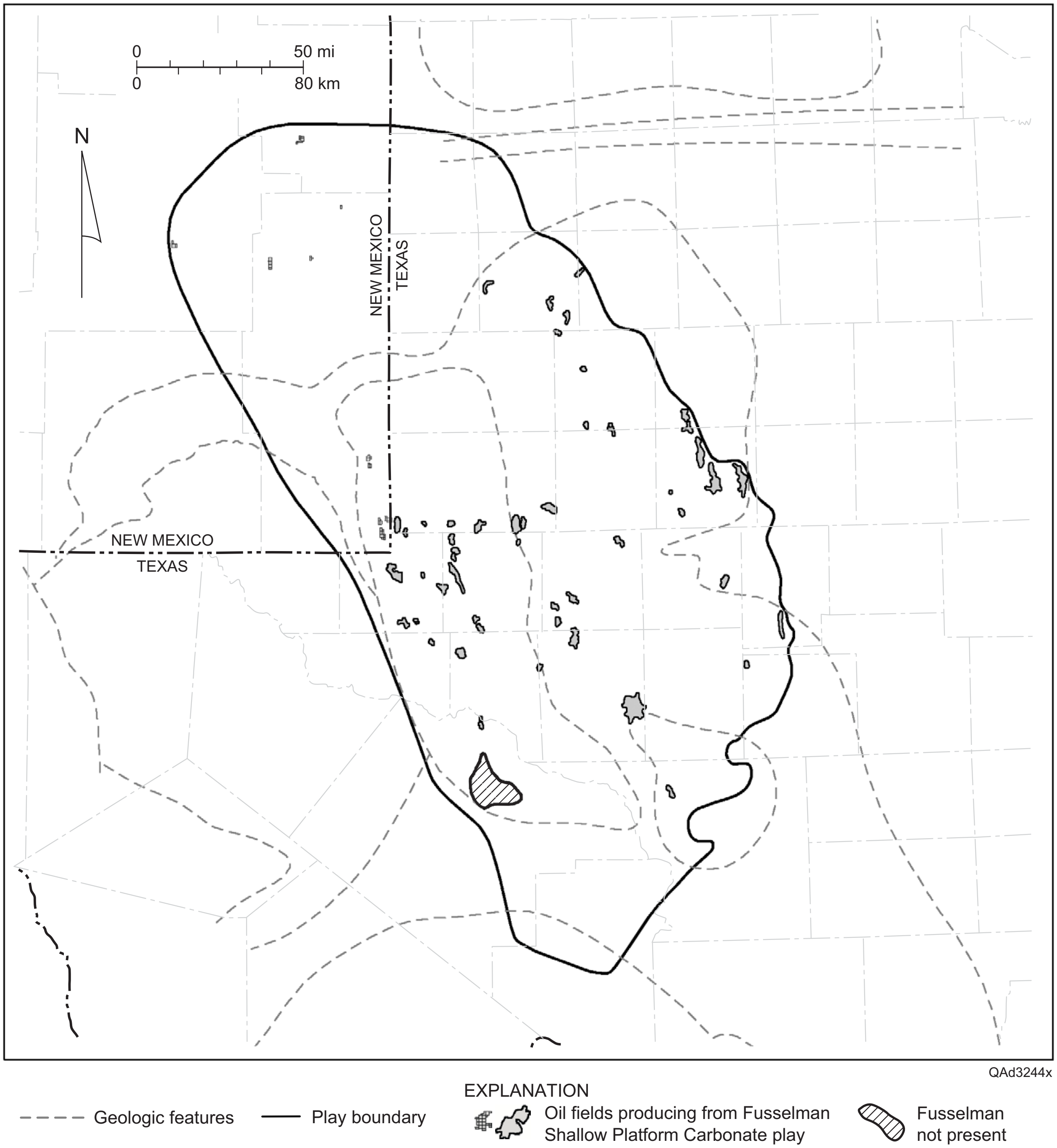


**Figure 8.** Play map for the Fusselman Shallow Platform Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

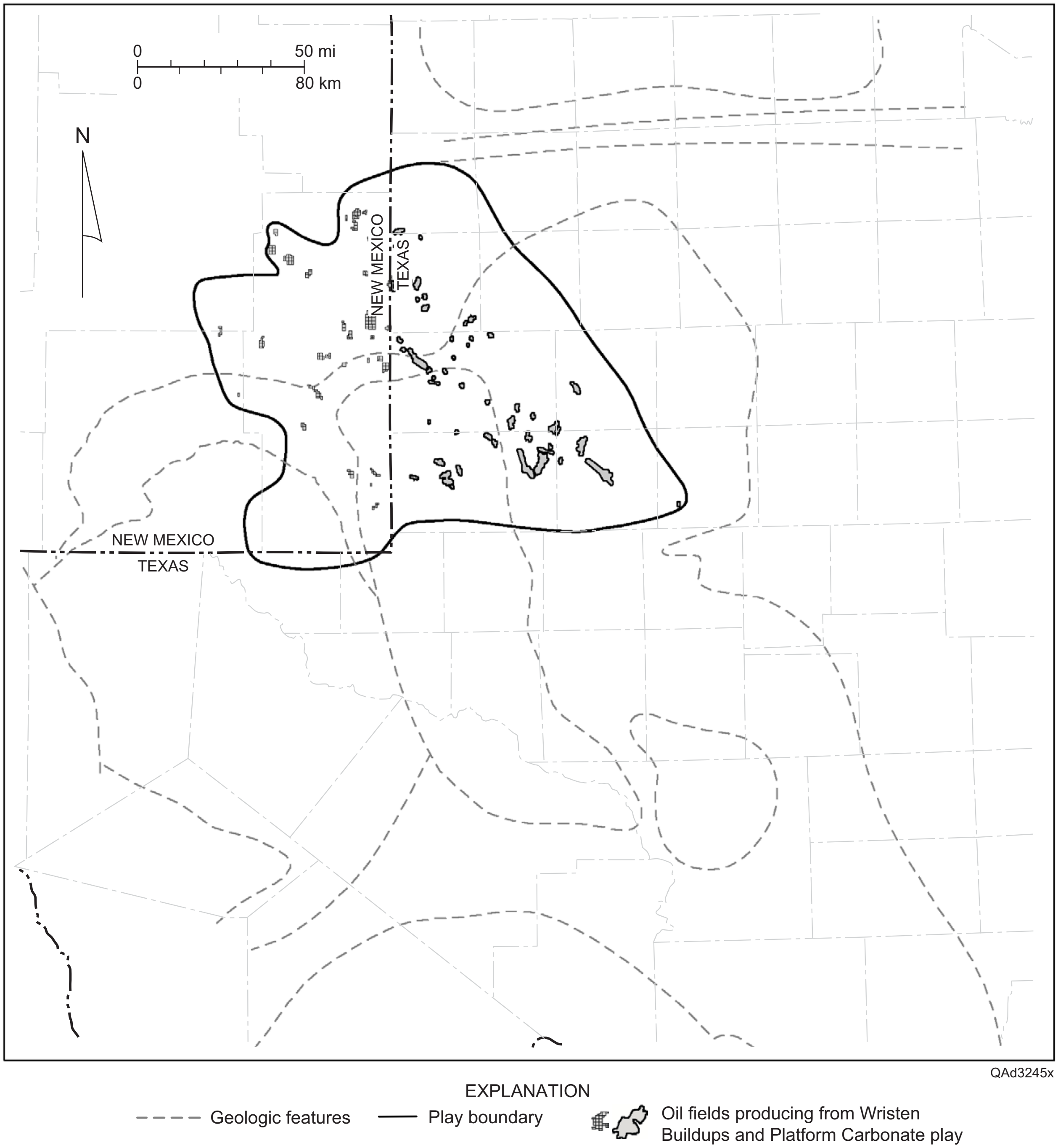


**Figure 9.** Play map for the Wristen Buildups and Platform Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

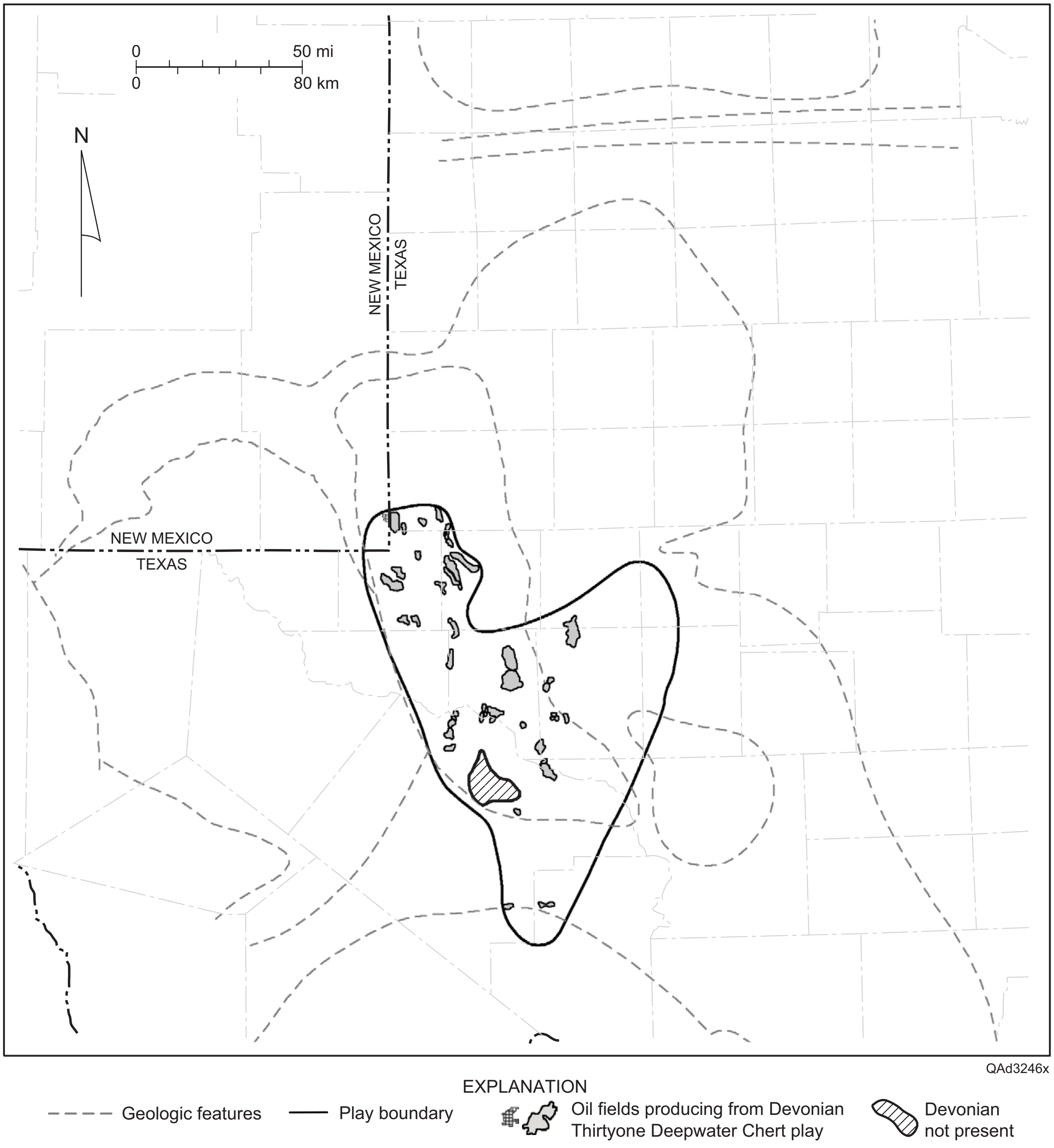


**Figure 10.** Play map for the Devonian Thirtyone Deepwater Chert play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

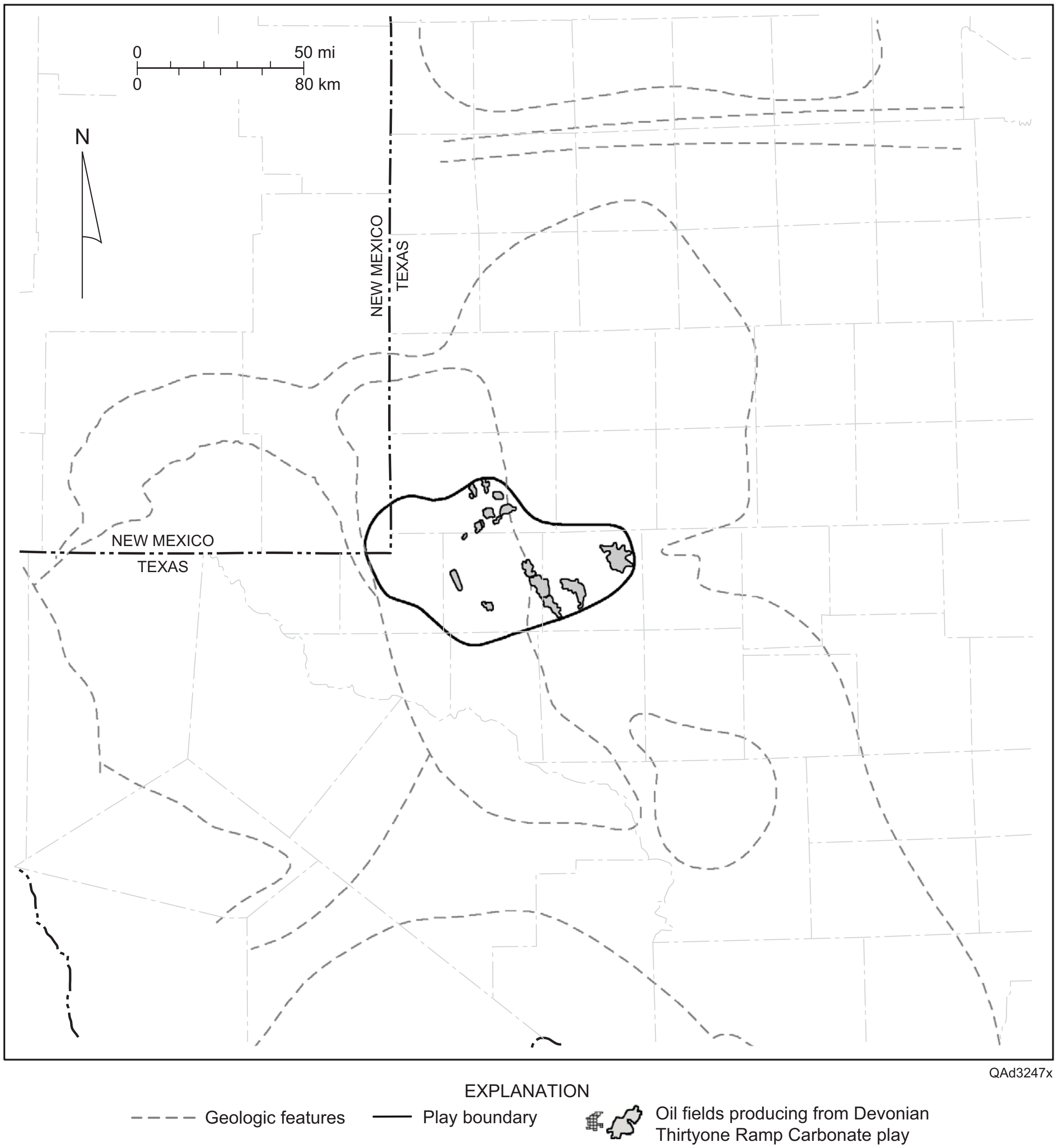


**Figure 11.** Play map for the Devonian Thirtyone Ramp Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

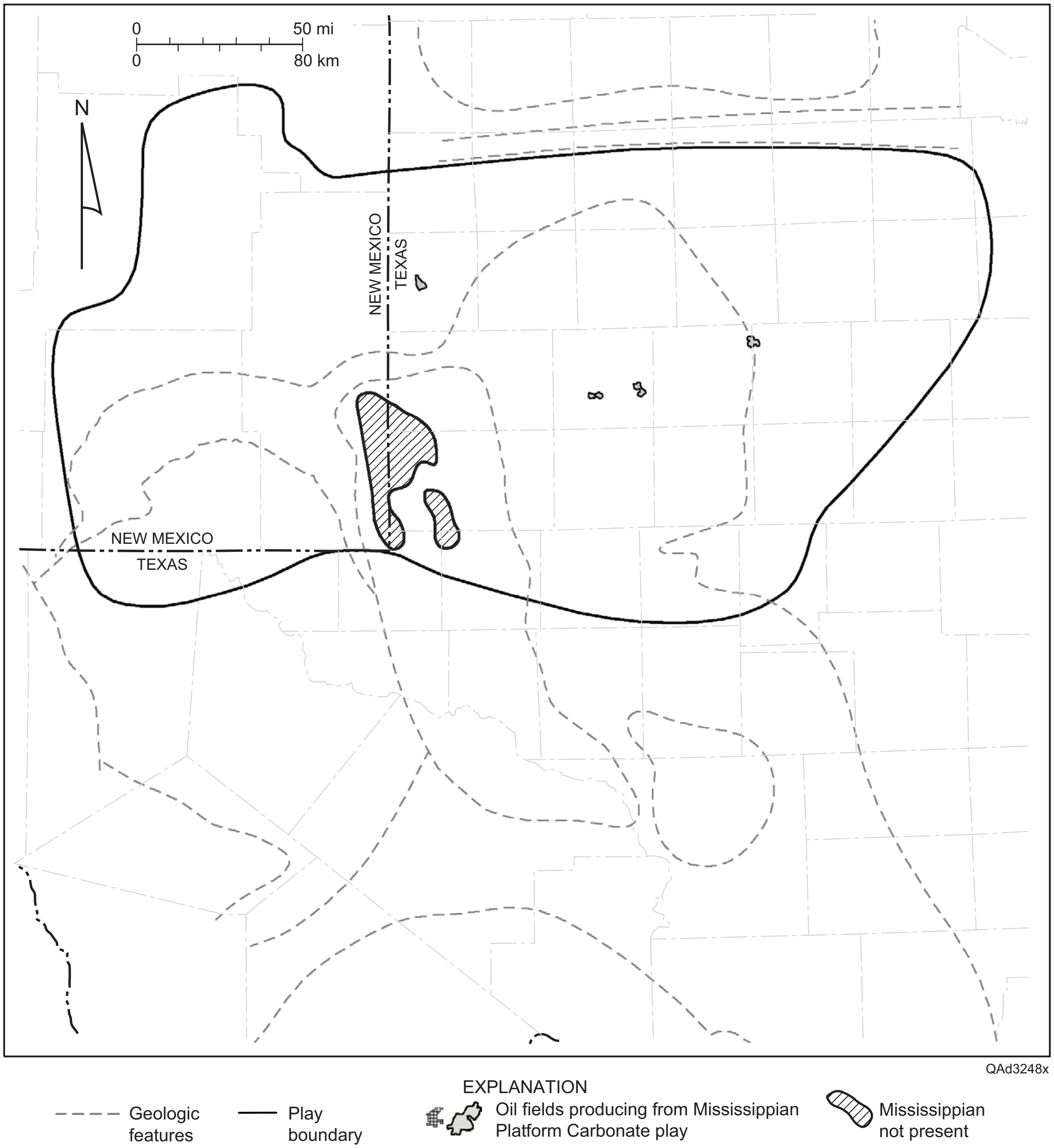


**Figure 12.** Play map for the Mississippian Platform Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

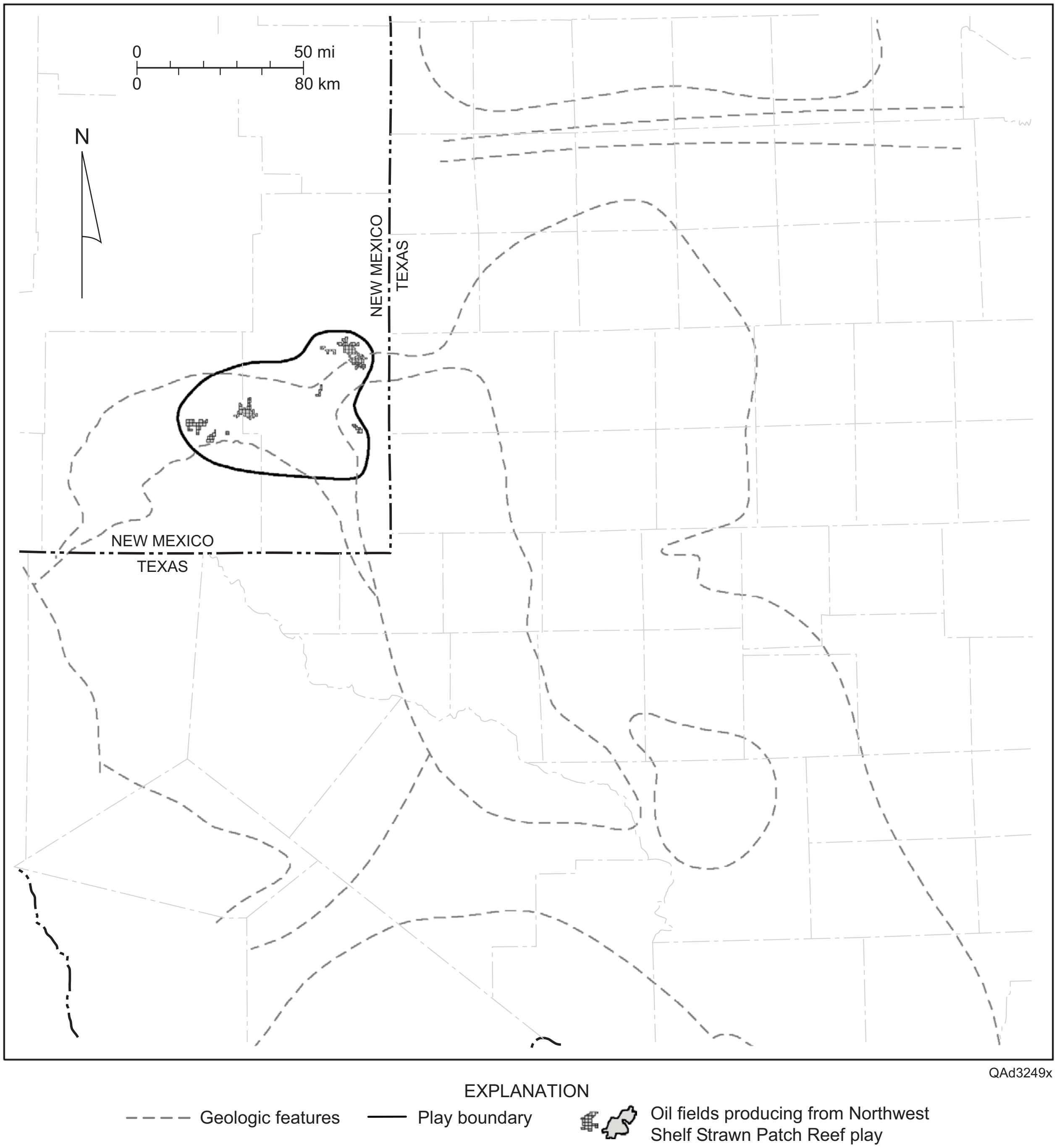


**Figure 13.** Play map for the Northwest Shelf Strawn Patch Reef play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

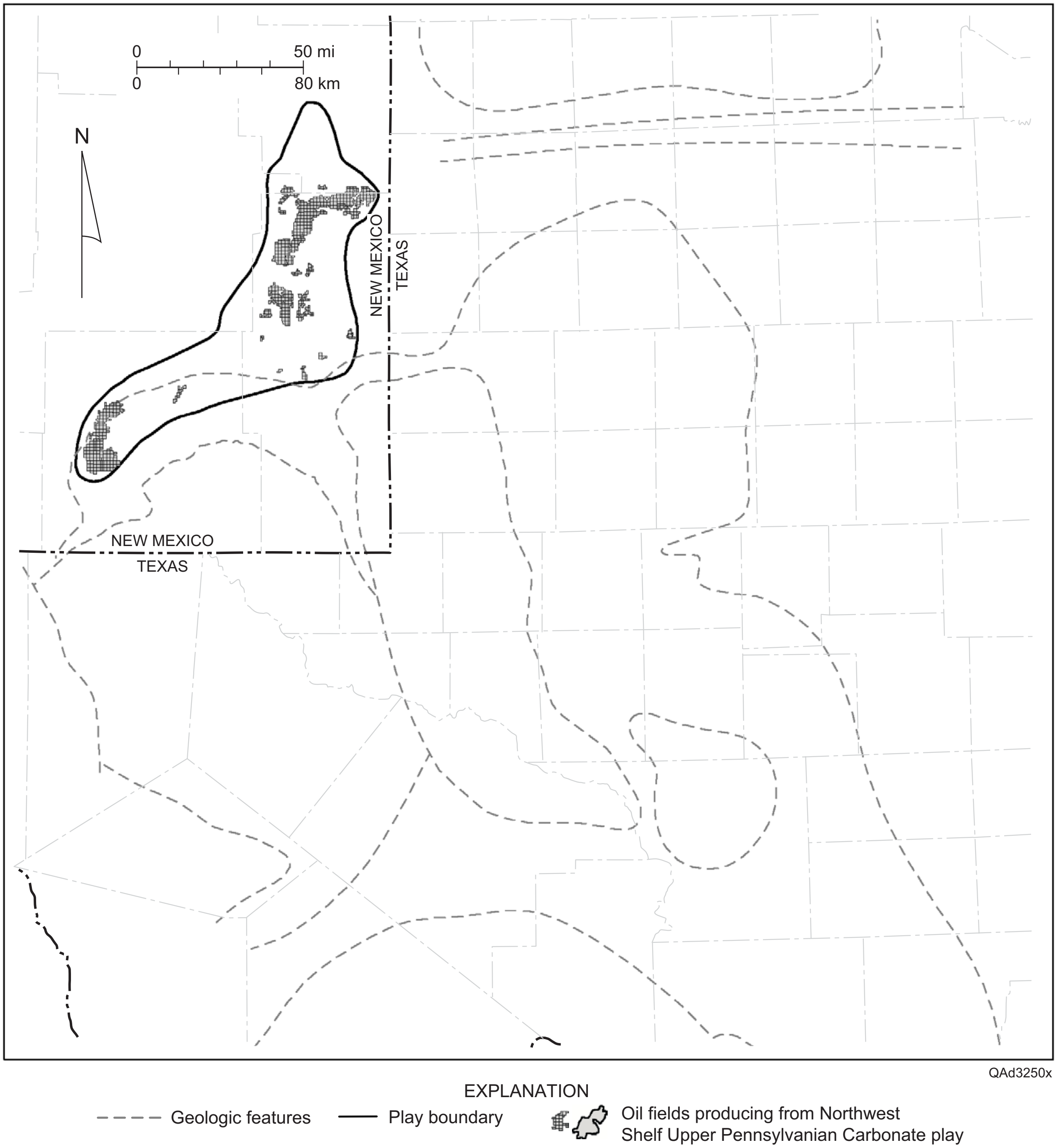


**Figure 14.** Play map for the Northwest Shelf Upper Pennsylvanian Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

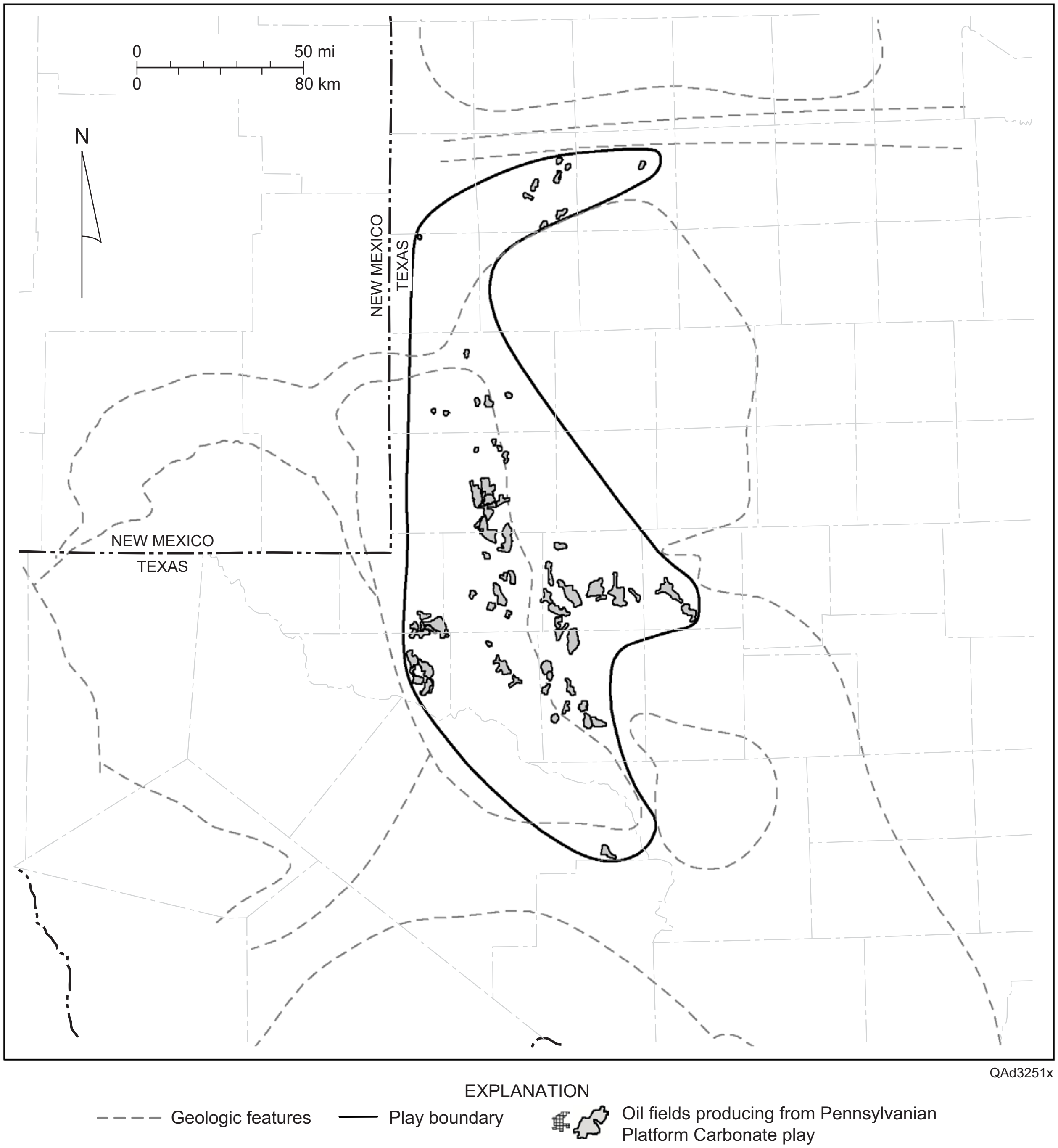


**Figure 15.** Play map for the Pennsylvanian Platform Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

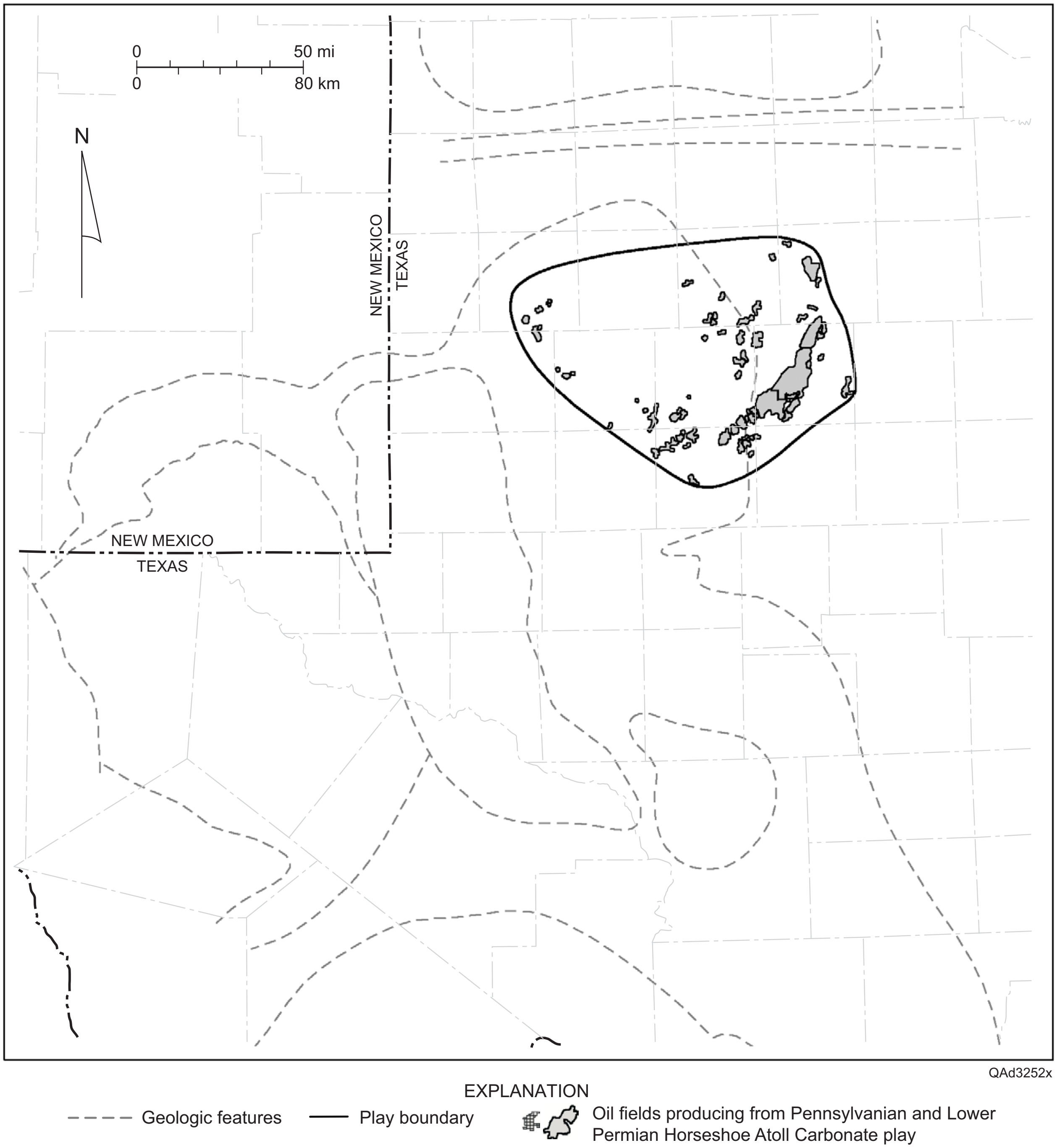


**Figure 16.** Play map for the Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

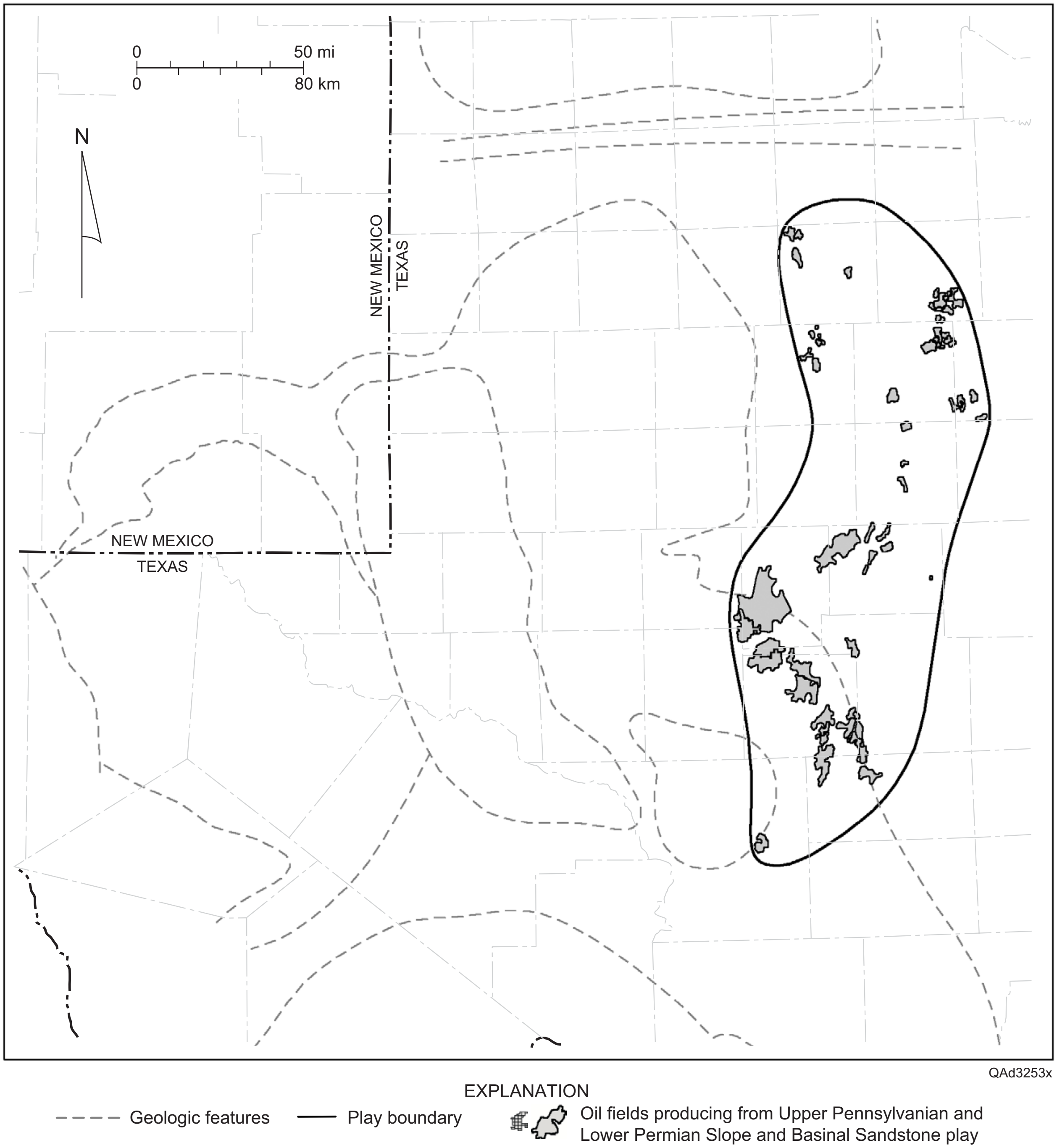


**Figure 17.** Play map for the Upper Pennsylvanian and Lower Permian Slope and Basinal Sandstone play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

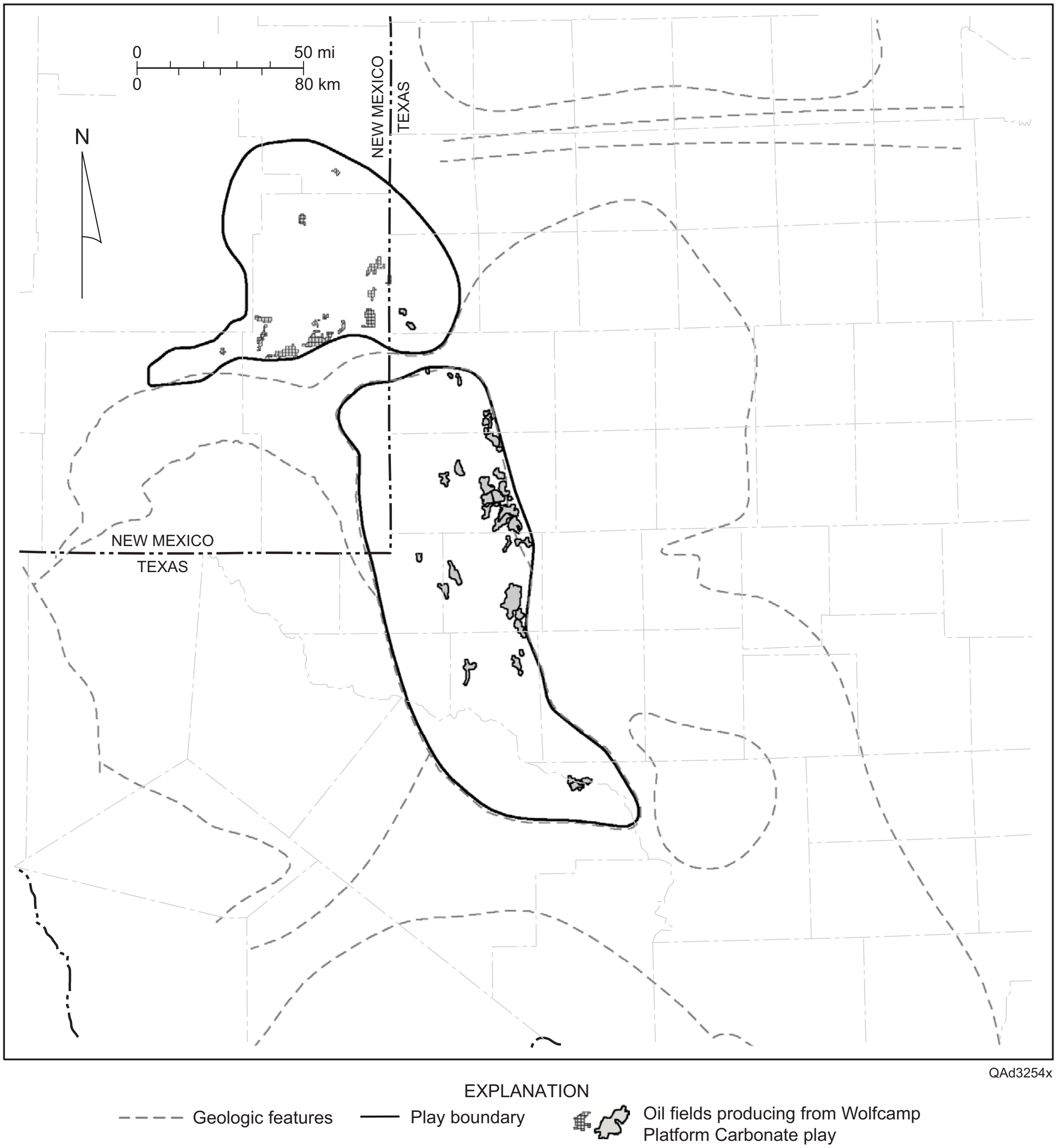


**Figure 18.** Play map for the Wolfcamp Platform Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

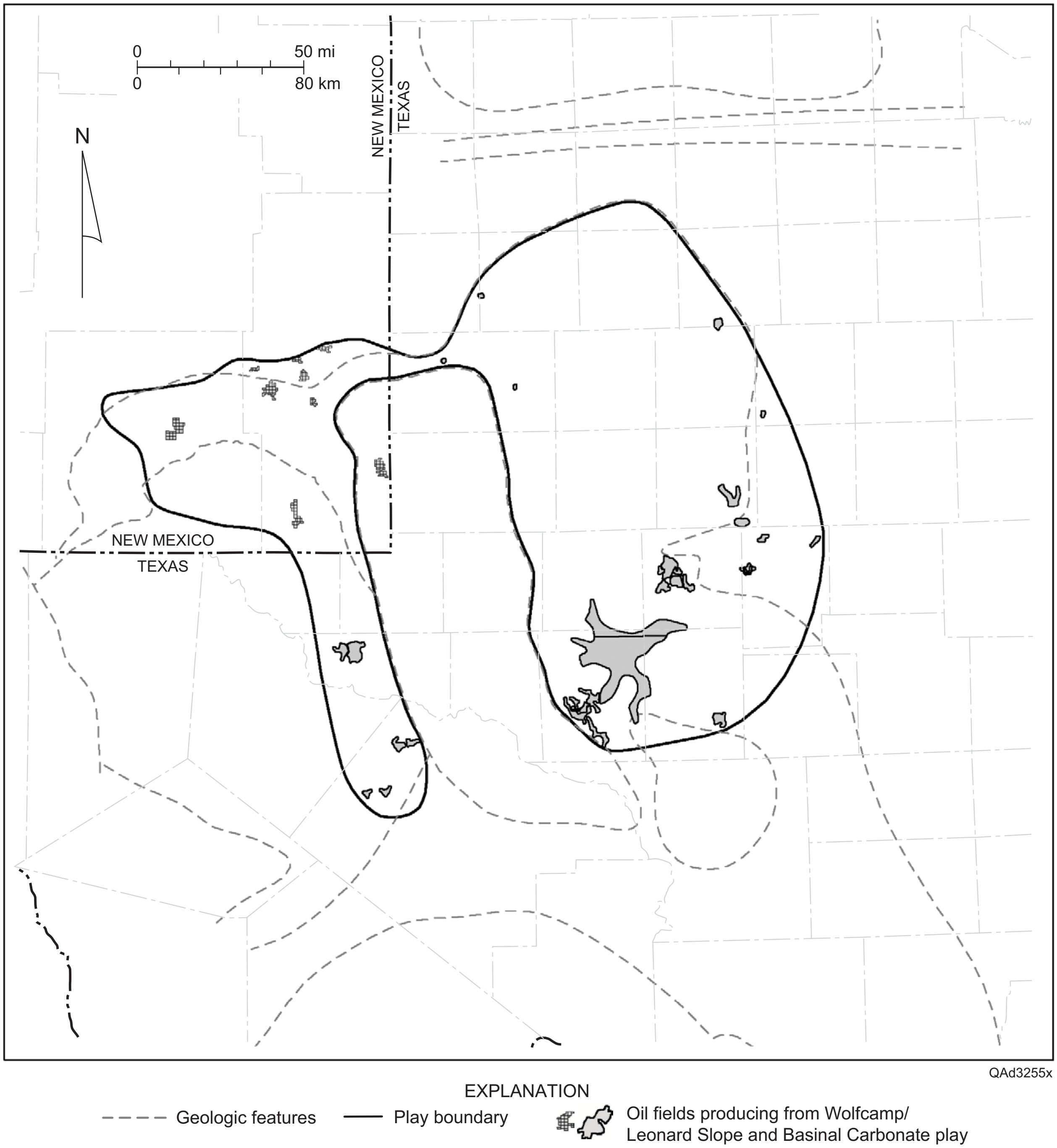


**Figure 19.** Play map for the Wolfcamp/Leonard Slope and Basinal Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

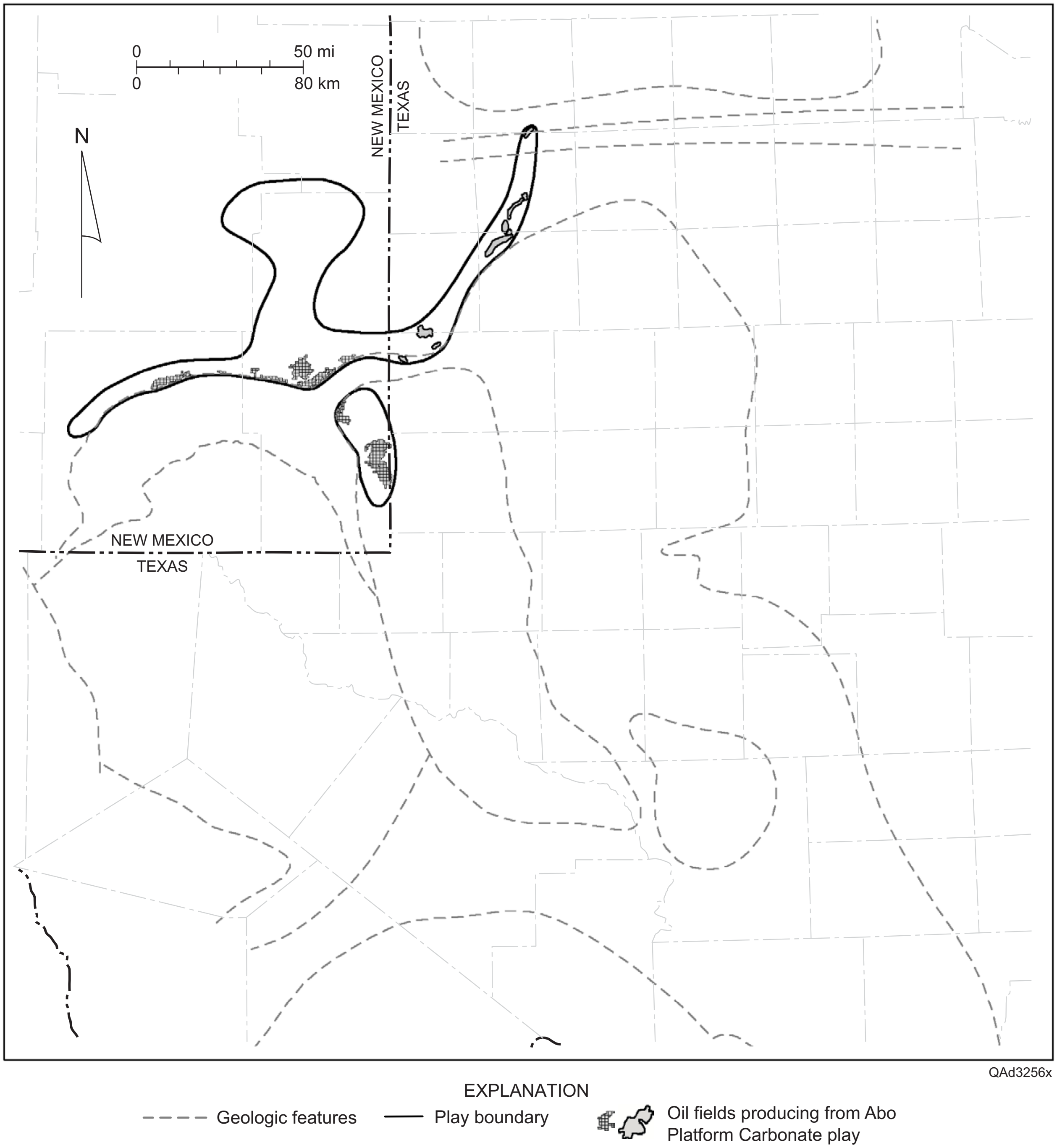


**Figure 20.** Play map for the Abo Platform Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

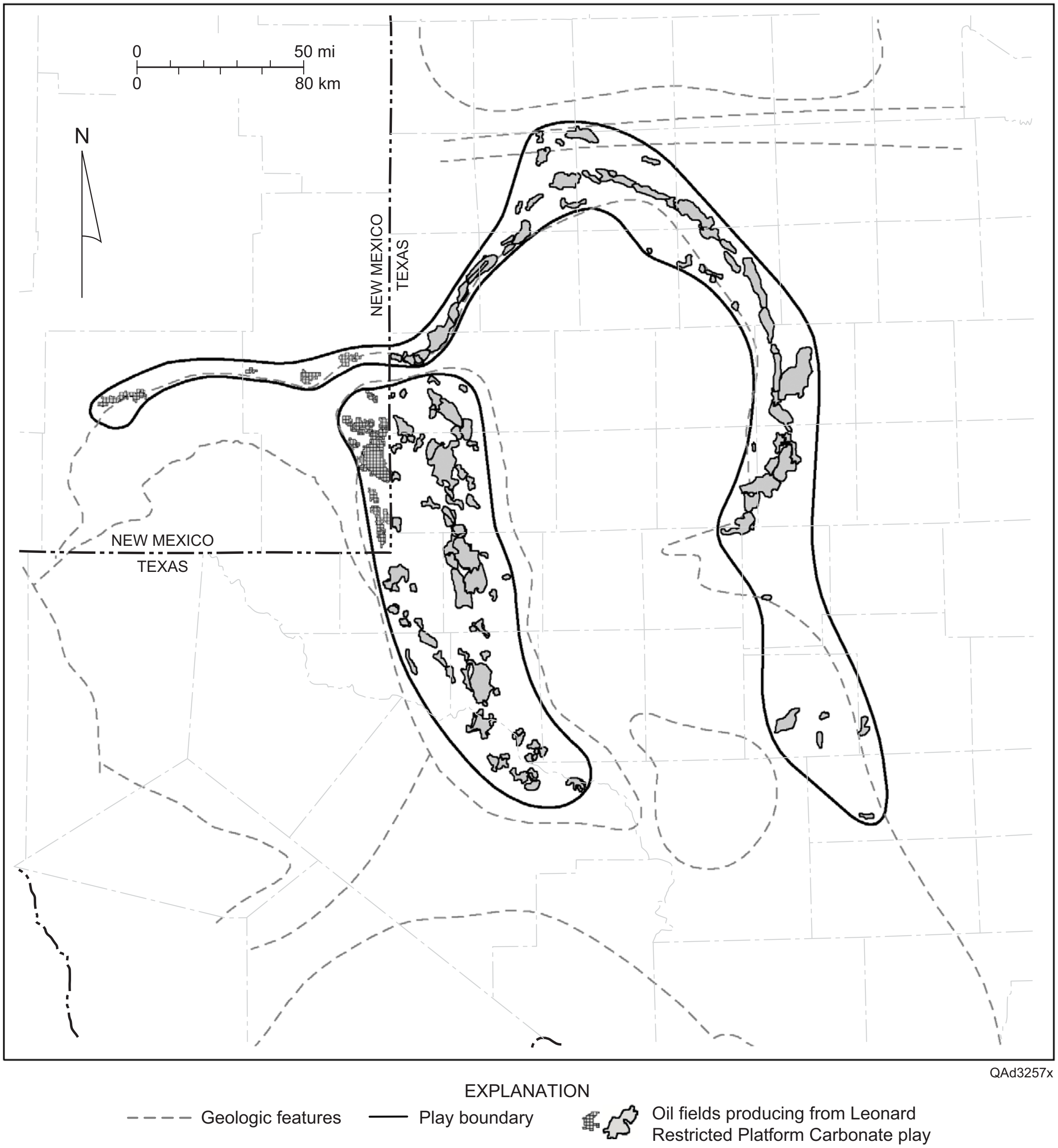


**Figure 21.** Play map for the Leonard Restricted Platform Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

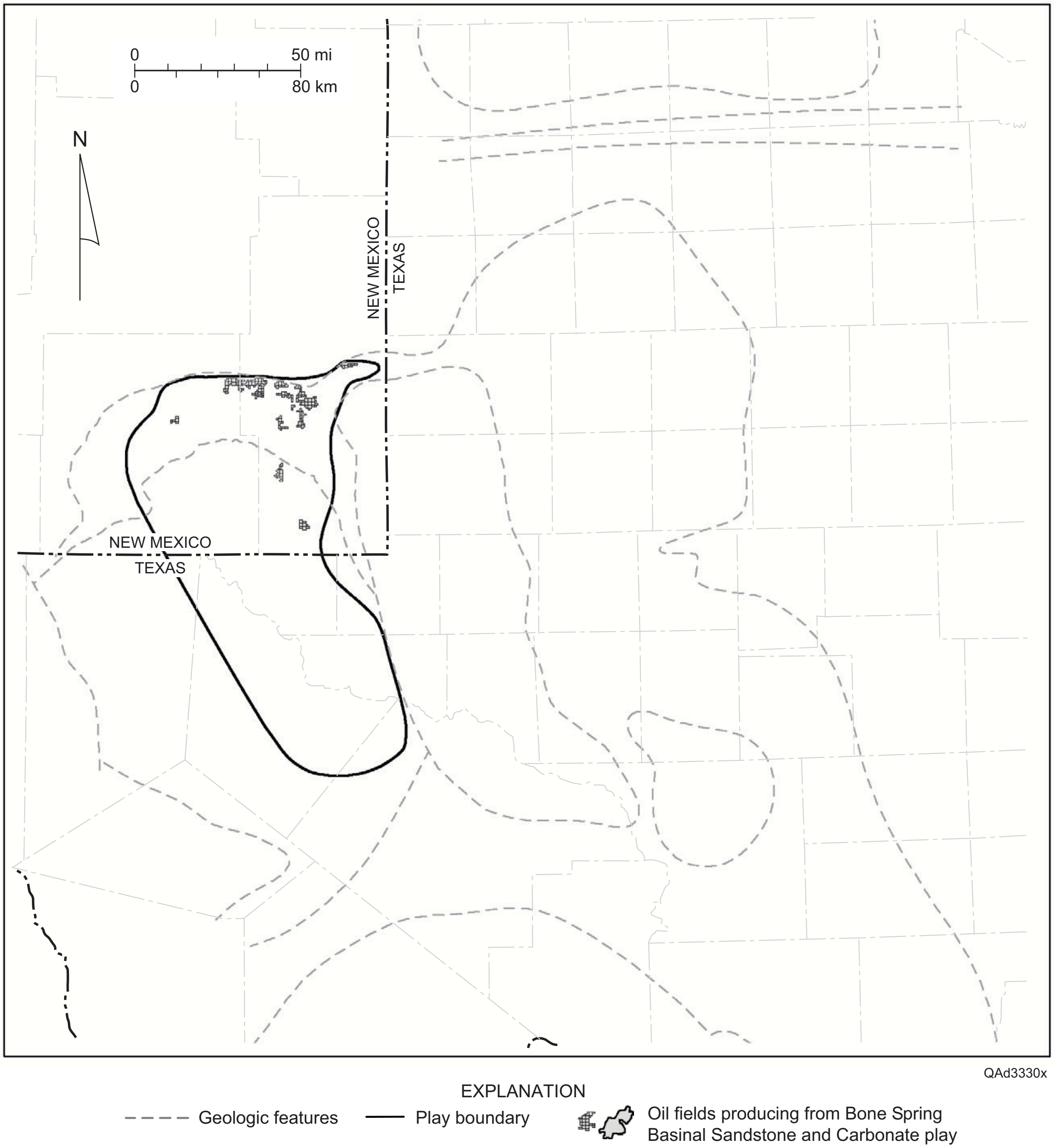


**Figure 22.** Play map for the Bone Spring Basinal Sandstone and Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

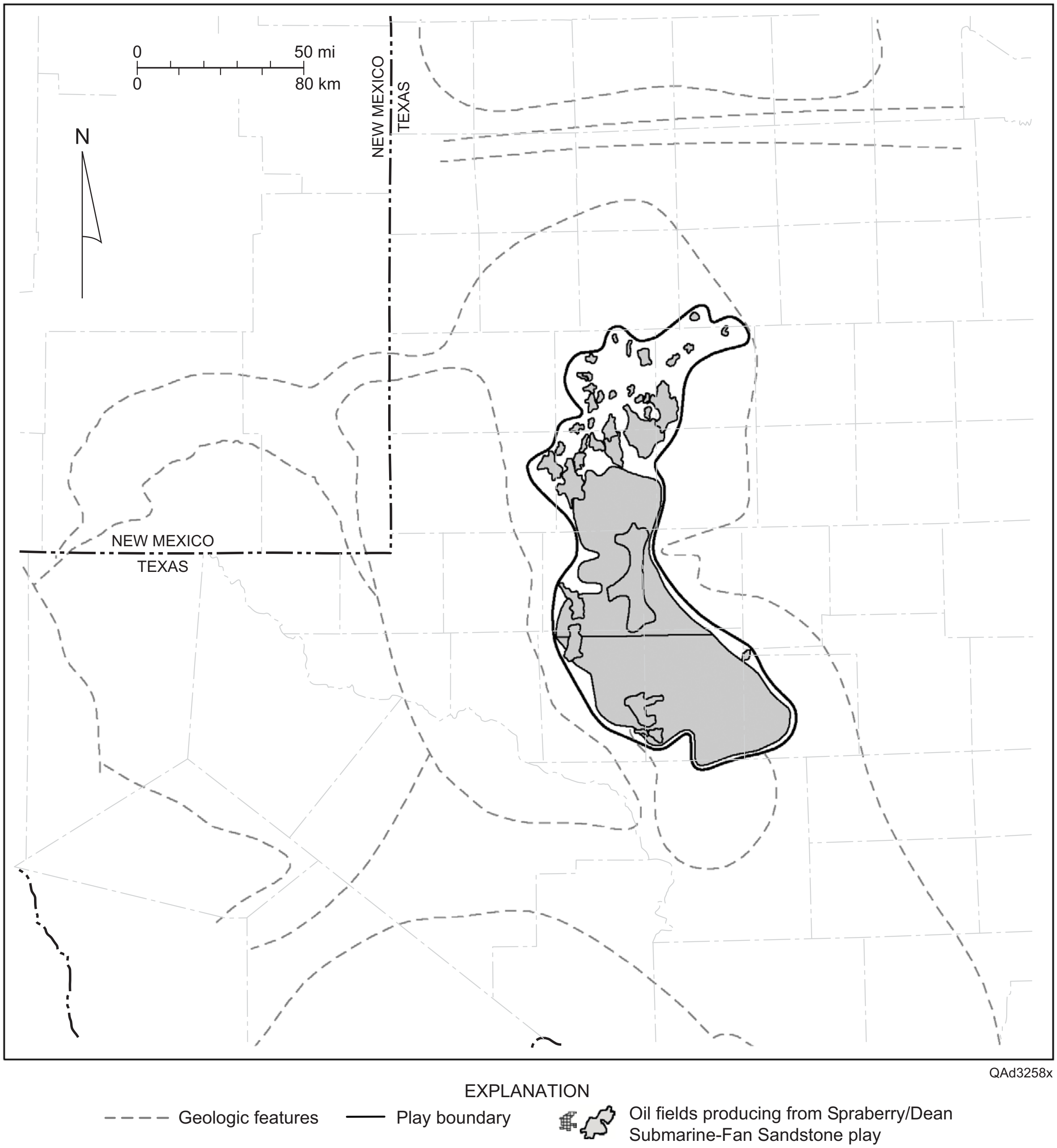


**Figure 23.** Play map for the Spraberry/Dean Submarine-Fan Sandstone play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

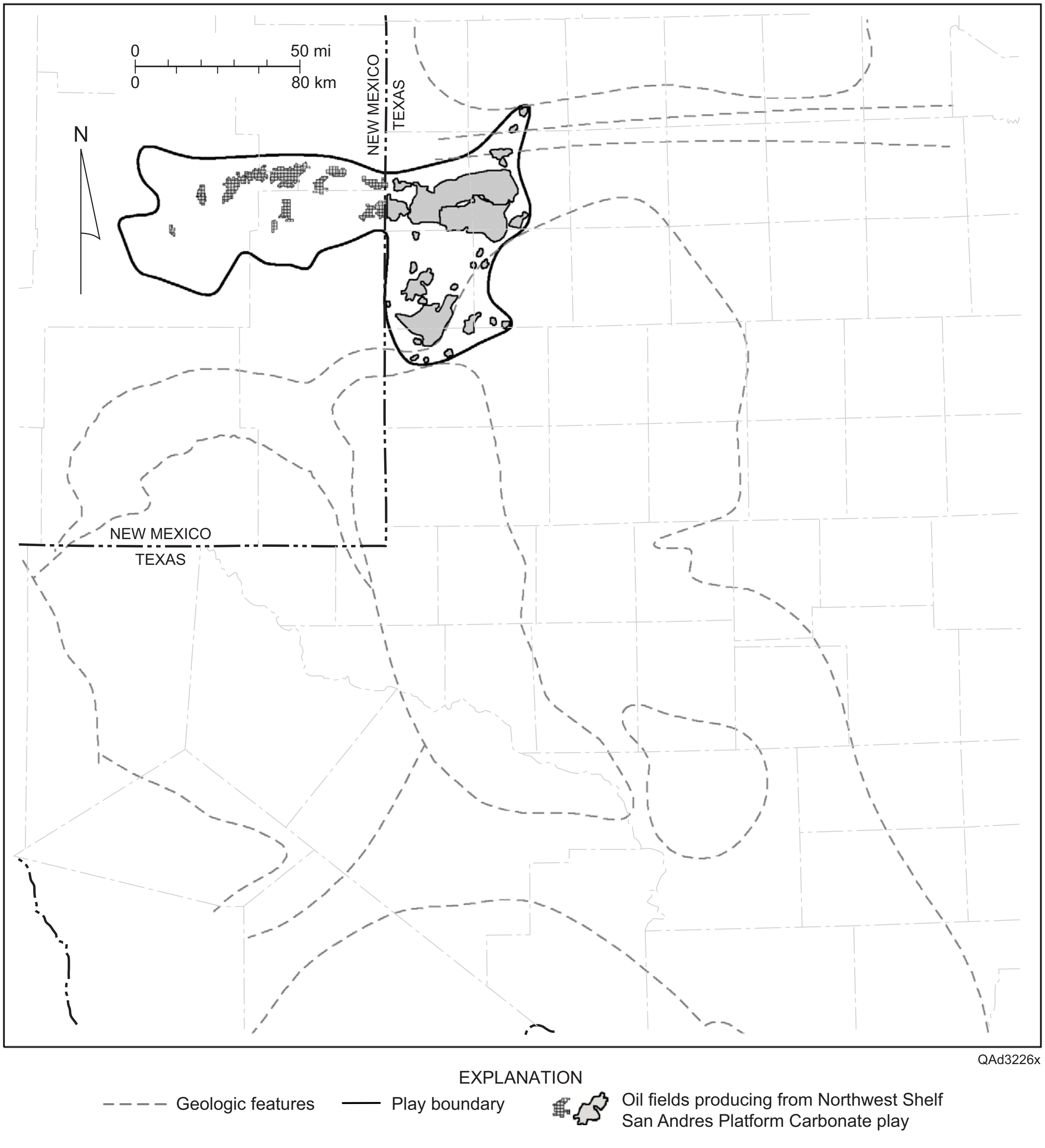


**Figure 24.** Play map for the Northwest Shelf San Andres Platform Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

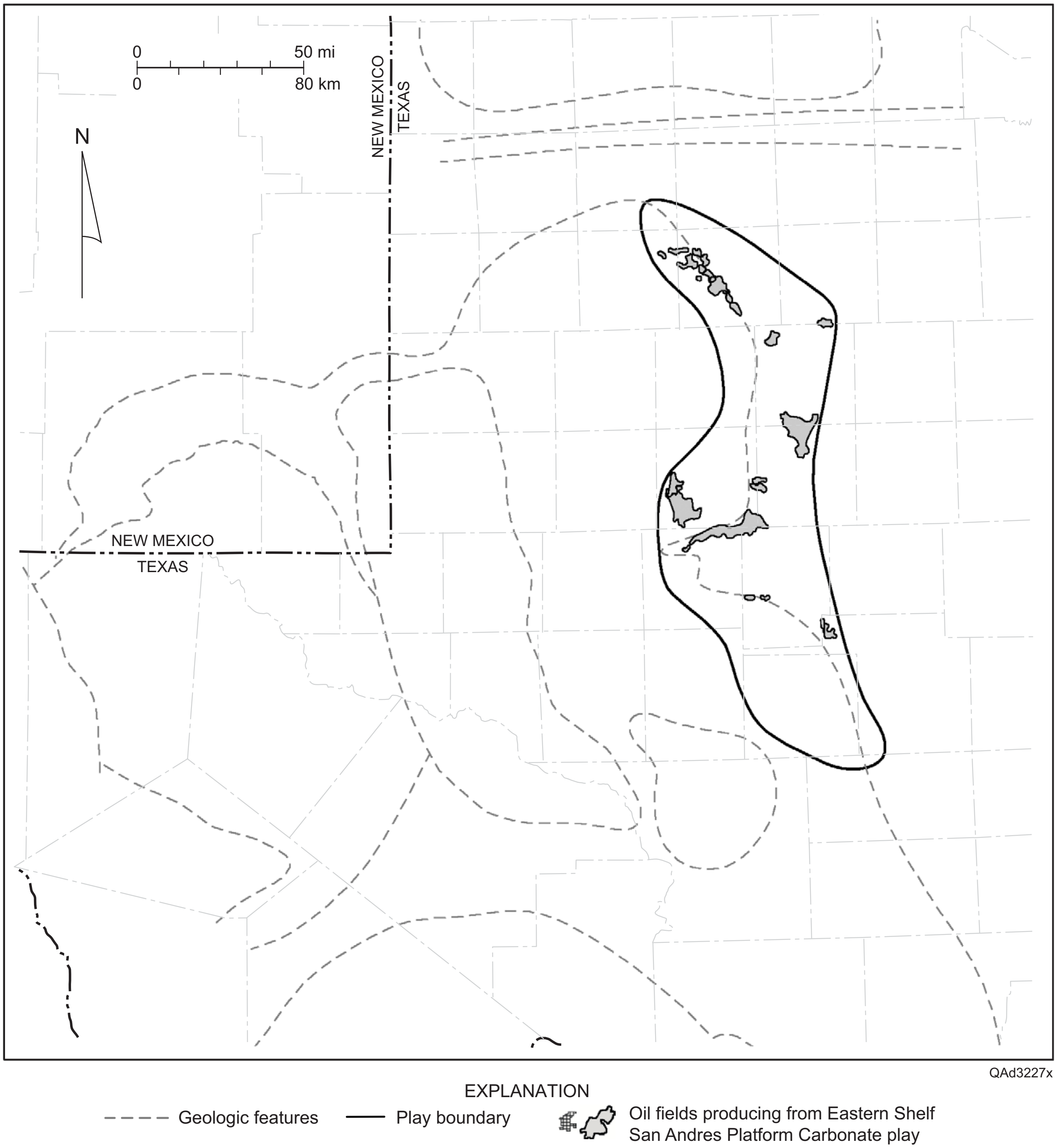


**Figure 25.** Play map for the Eastern Shelf San Andres Platform Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

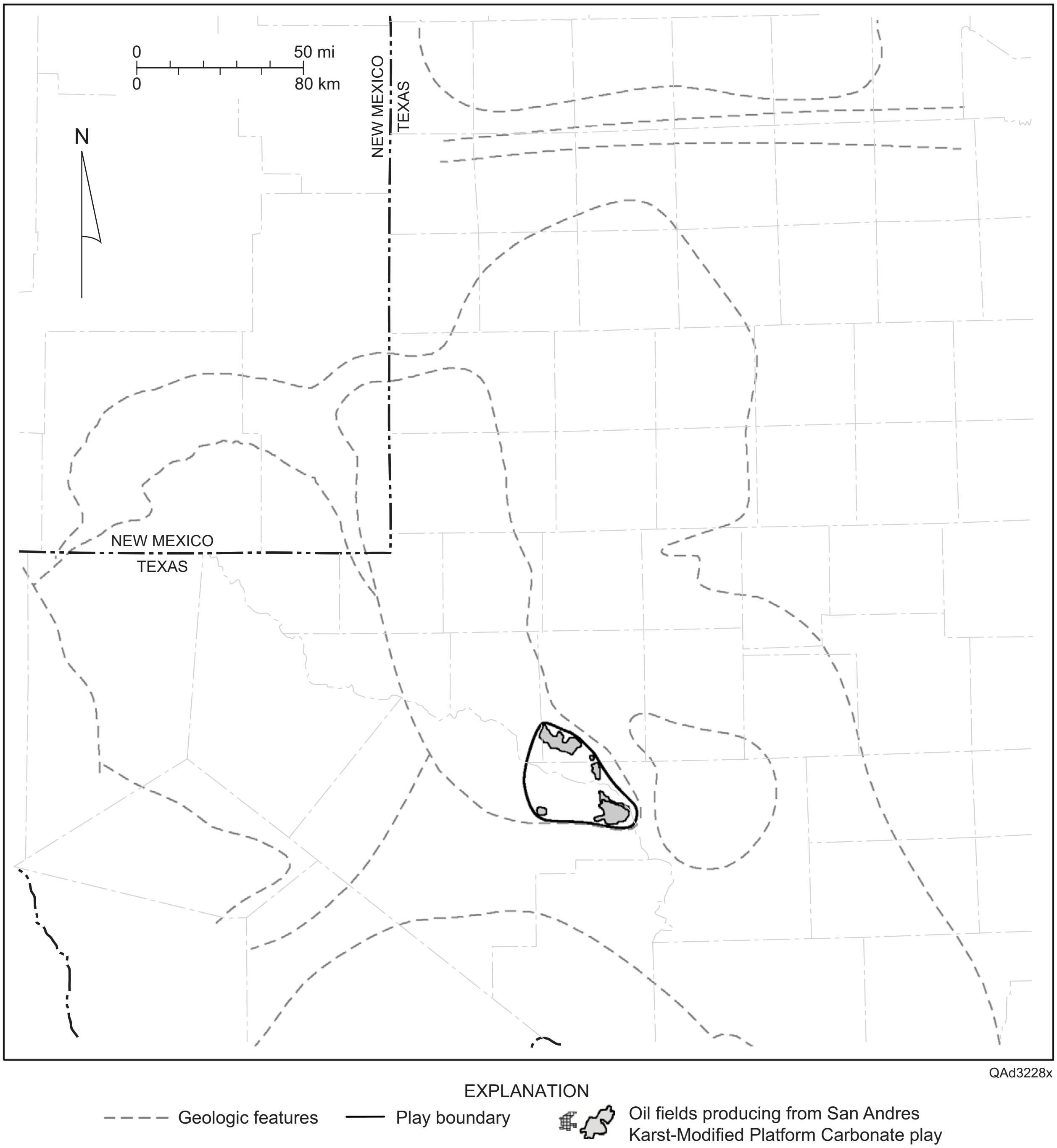


**Figure 26.** Play map for the San Andres Karst-Modified Platform Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

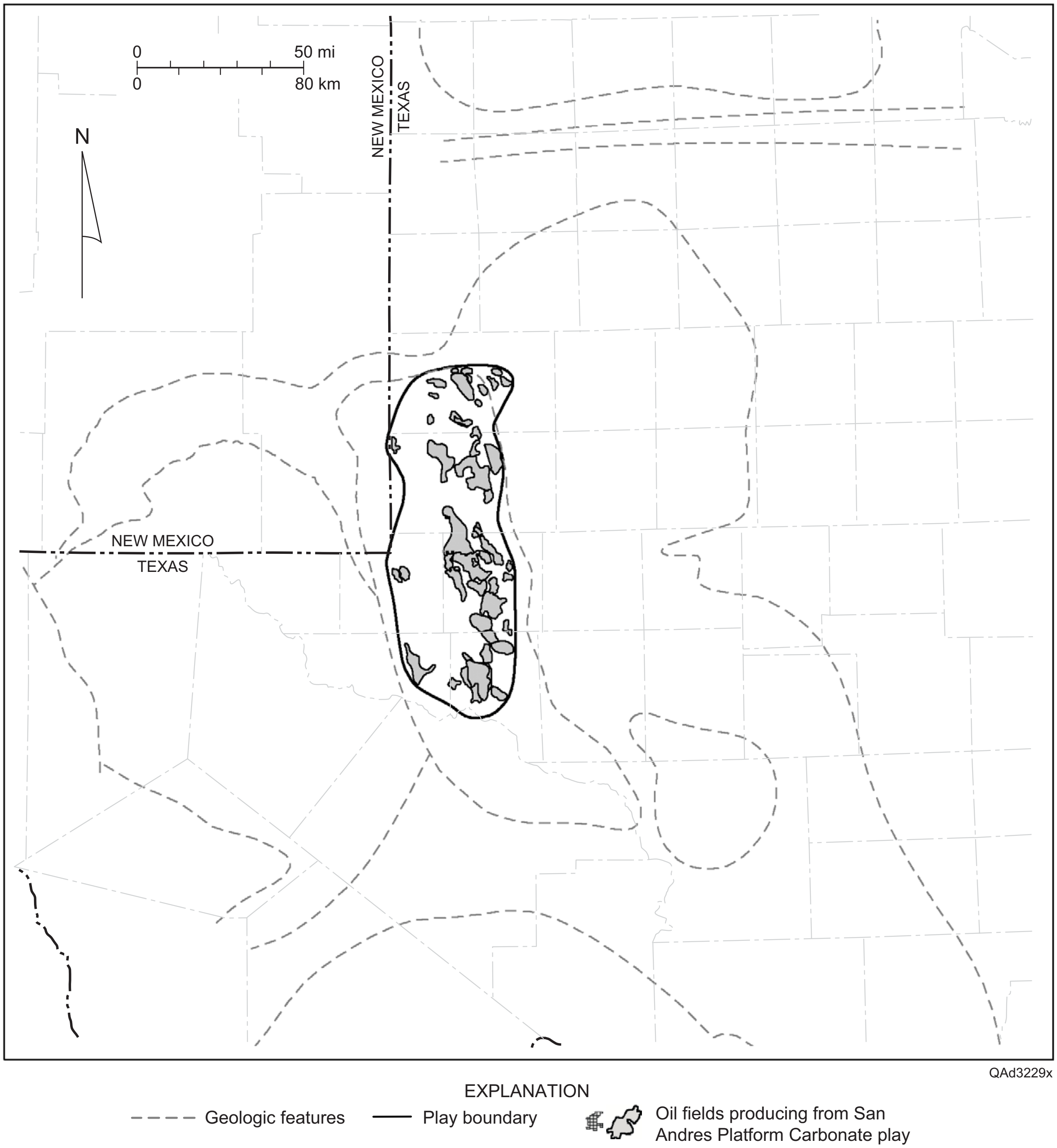


**Figure 27.** Play map for the San Andres Platform Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

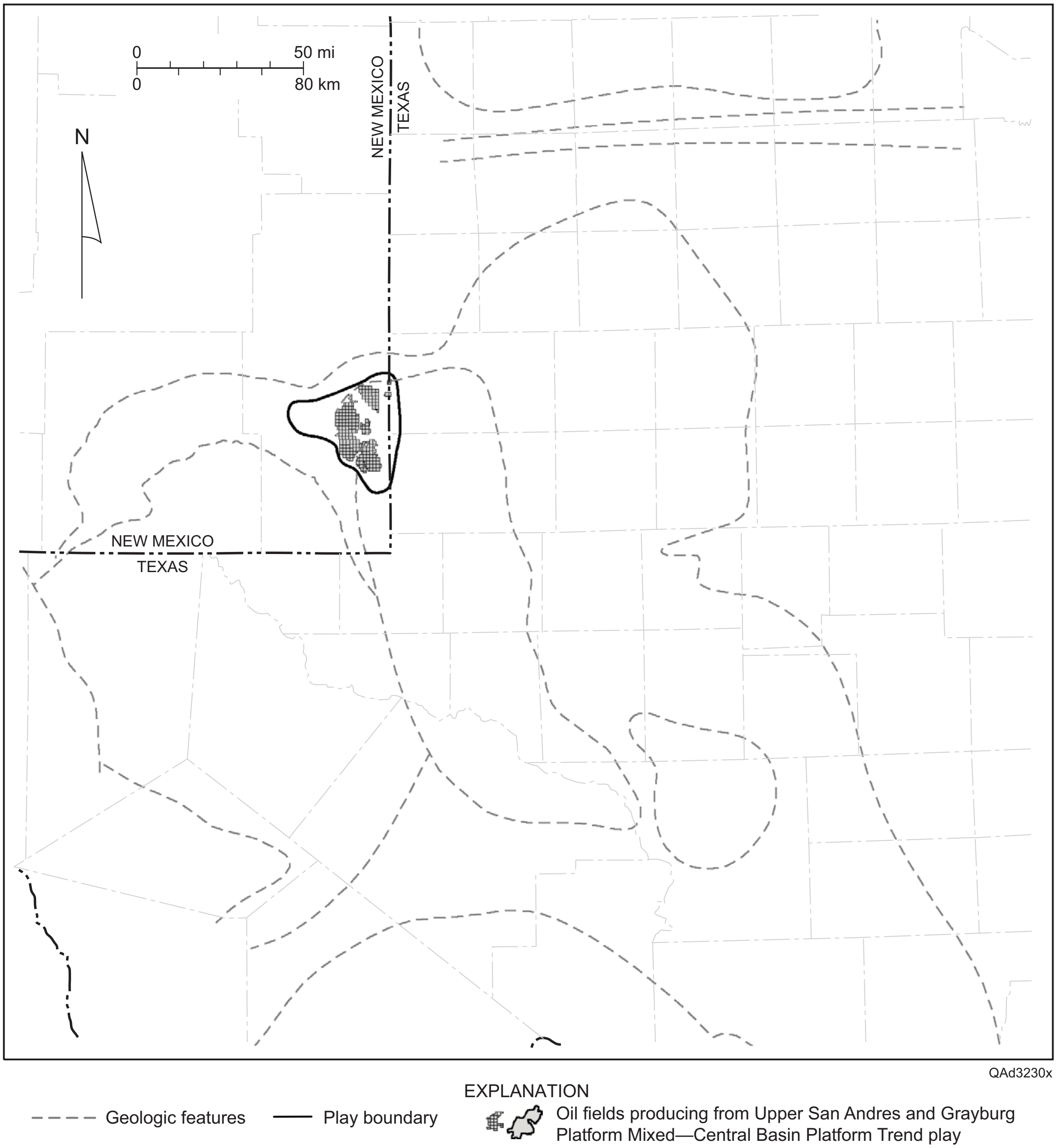


**Figure 28.** Play map for the Upper San Andres and Grayburg Platform Mixed—Central Basin Platform Trend play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

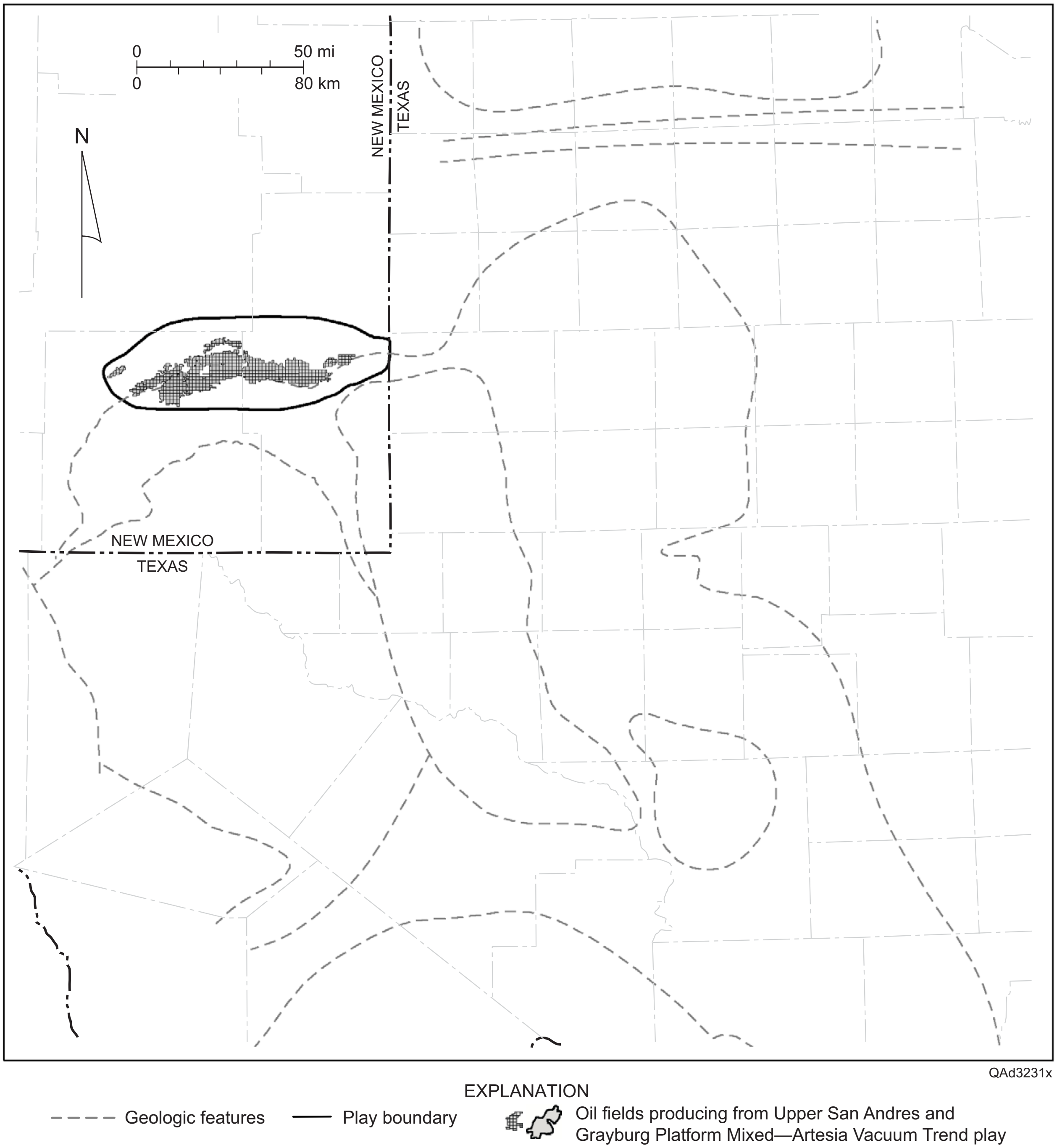


**Figure 29.** Play map for the Upper San Andres and Grayburg Platform Mixed—Artesia Vacuum Trend play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

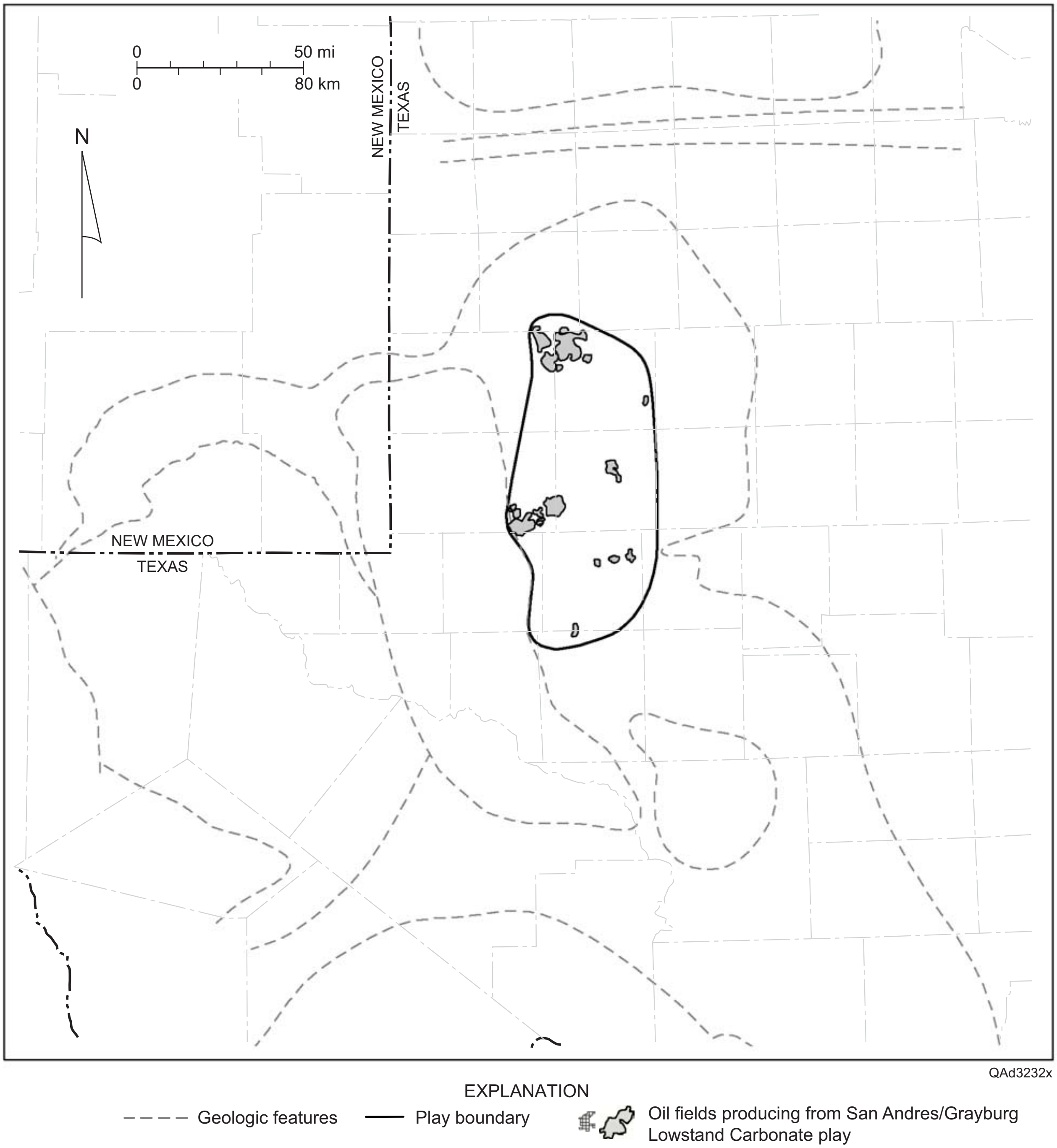


**Figure 30.** Play map for the San Andres/Grayburg Lowstand Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

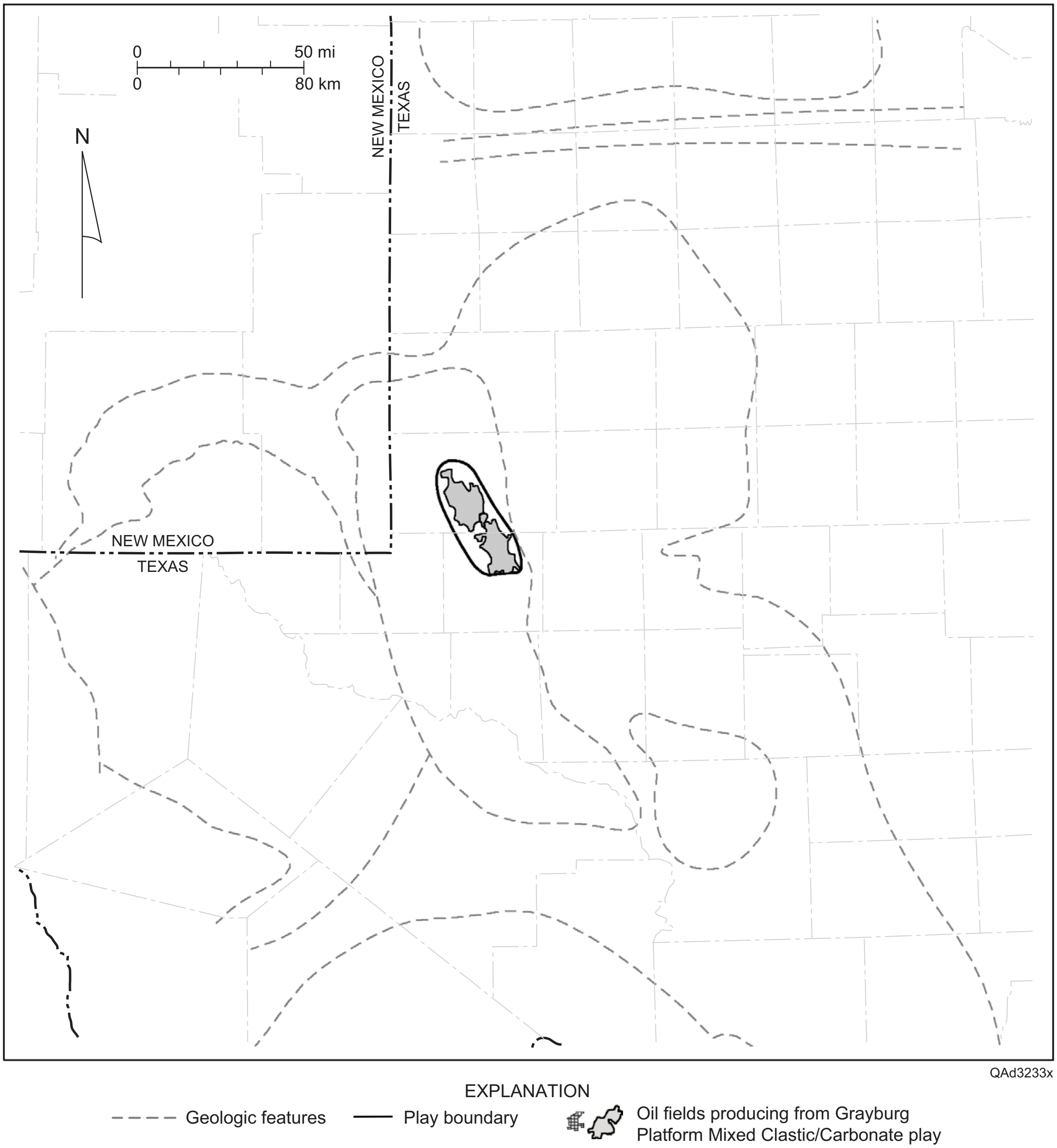


**Figure 31.** Play map for the Grayburg Platform Mixed Clastic/Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

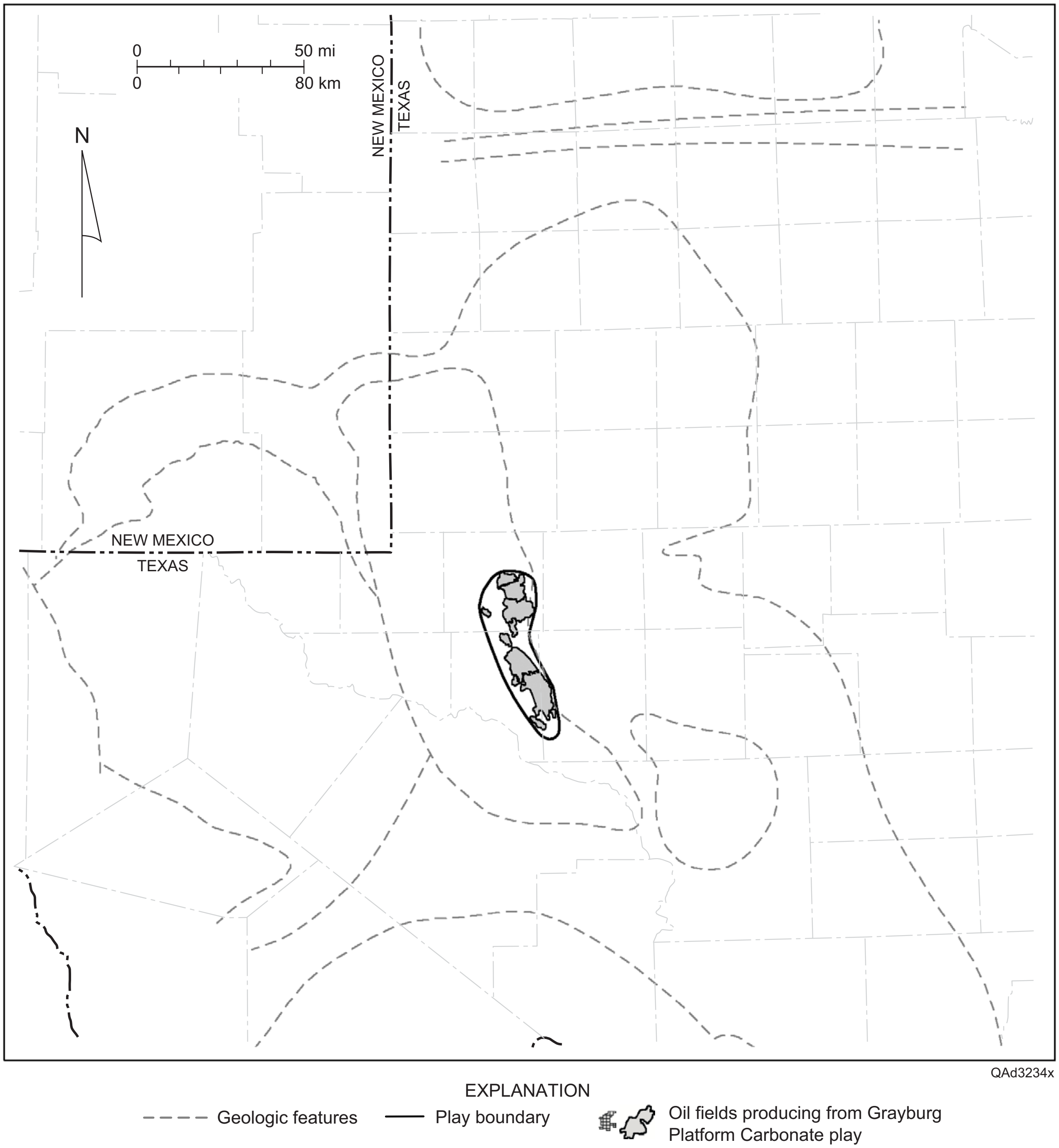


**Figure 32.** Play map for the Grayburg Platform Carbonate play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

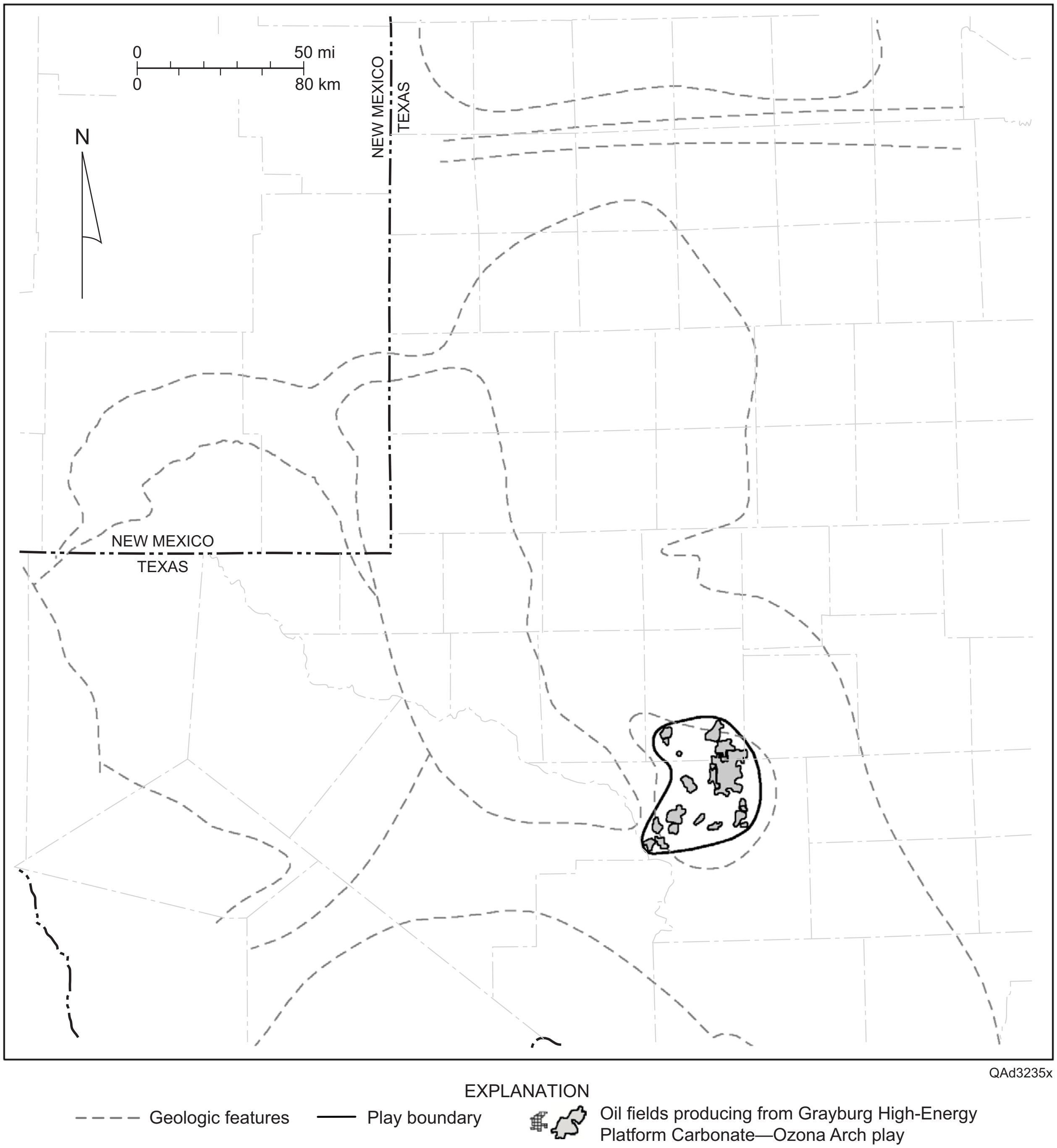


**Figure 33.** Play map for the Grayburg High-Energy Platform Carbonate—Ozona Arch play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

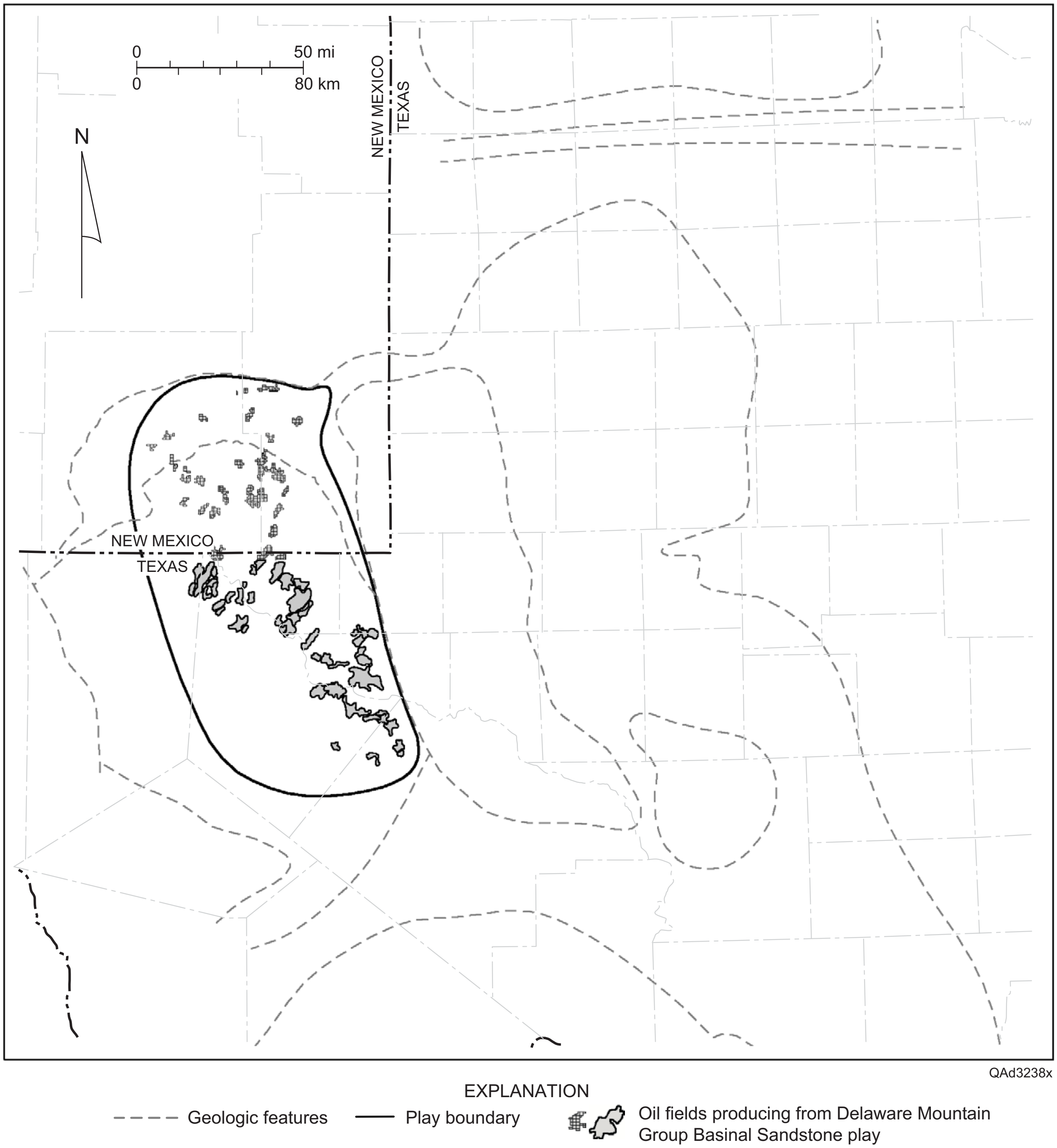


**Figure 34.** Play map for the Delaware Mountain Group Basinal Sandstone play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

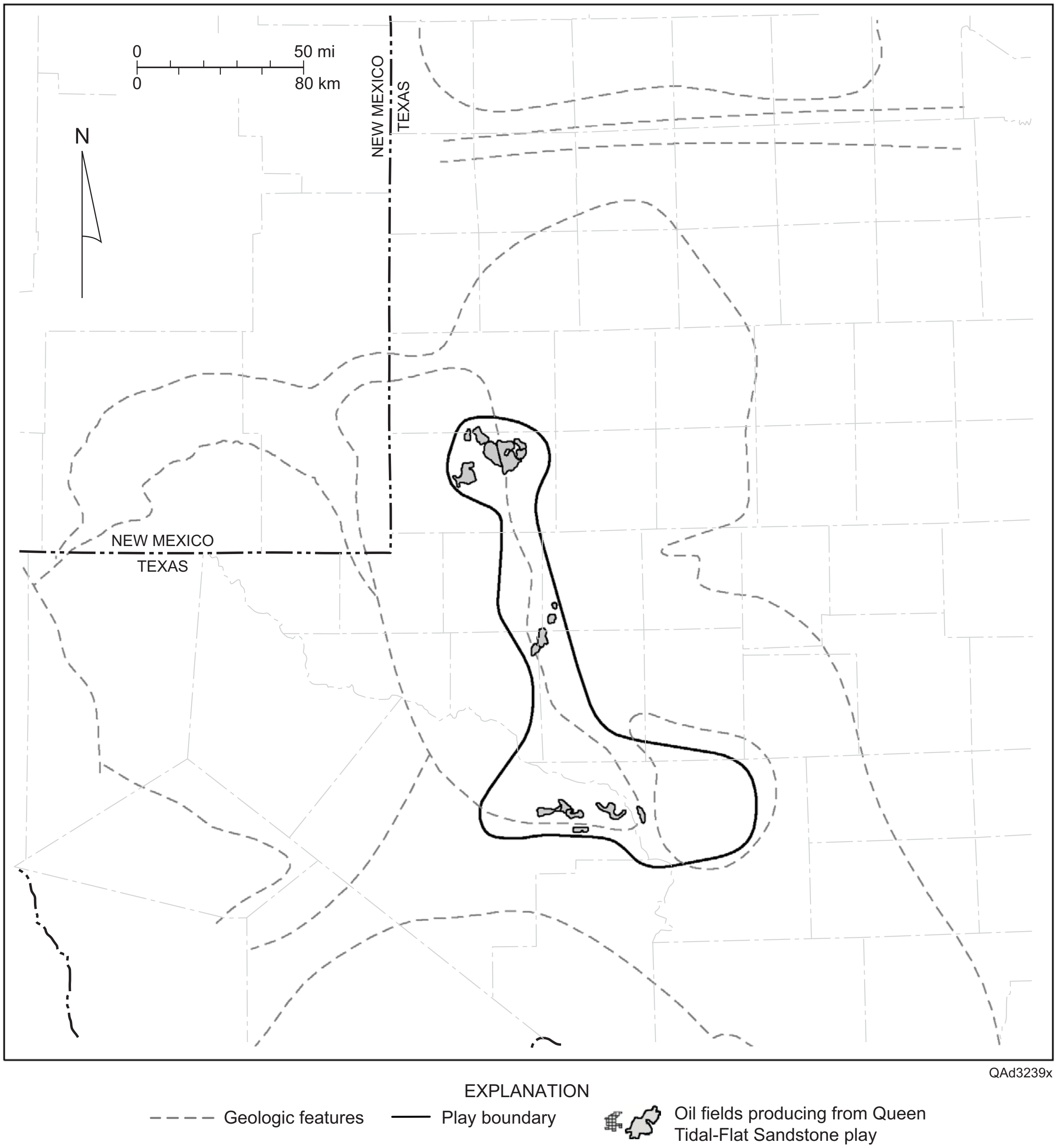


**Figure 35.** Play map for the Queen Tidal-Flat Sandstone play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

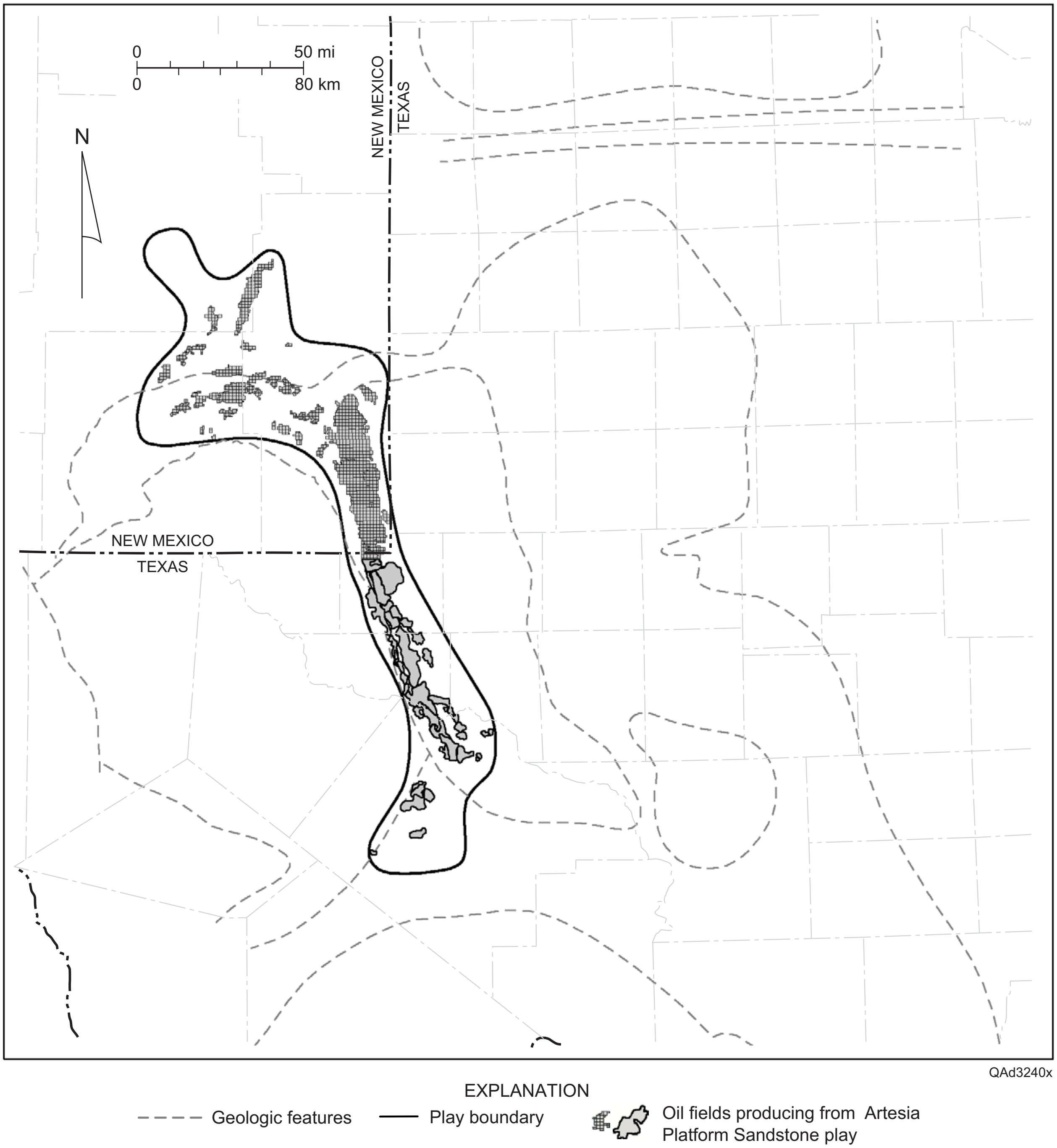


**Figure 36.** Play map for the Artesia Platform Sandstone play, showing location of reservoirs having >1 MMbbl cumulative production, the play boundary, and geologic features. See figure 1 for county names and figure 2 for identification of geologic features.

Table 3. Ellenburger Selectively Dolomitized Ramp Carbonate play (Play 101). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 5783001 | 7C | BARNHART | | TX | REAGAN | 1941 | 9008 | 20,274 | 16,446,688 |
| 6621250 | 7B | BECKHAM | ELLENBURGER | TX | NOLAN | 1967 | 6183 | 6,815 | 1,351,572 |
| | 7C | BIG LAKE | ELLENBURGER | TX | REAGAN | 1928 | 8890 | | * |
| 8629500 | 7B | BLACKWELL, NORTH | ELLENBURGER | TX | NOLAN | 1953 | 6540 | 16,029 | 2,083,547 |
| 25377568 | 7B | DORA, NORTH | ELLENBURGER | TX | NOLAN | 1953 | 5914 | 21 | 4,299,502 |
| 26606333 | 8A | DUNIGAN | ELLENBURGER | TX | BORDEN | 1958 | 8737 | 1,859 | 1,136,041 |
| 28393333 | 7C | ELKHORN | ELLENBURGER | TX | CROCKETT | 1951 | 7185 | 11,036 | 12,109,347 |
| 30414500 | 7B | FAVER, NORTH | ELLENBURGER | TX | NOLAN | 1953 | 6006 | 0 | 1,340,294 |
| 31690250 | 8A | FLUVANNA | ELLENBURGER | TX | BORDEN | 1952 | 8358 | 5,108 | 3,079,237 |
| 31697166 | 8A | FLUVANNA, SW. | ELLEN. | TX | BORDEN | 1968 | 8306 | 3,395 | 1,559,708 |
| 32449400 | 7C | FRADEAN | ELLENBURGER | TX | UPTON | 1959 | 10186 | 0 | 2,154,464 |
| 32653800 | 7B | FRANKIRK | ELLENBURGER | TX | STONEWALL | 1958 | 5928 | 11,298 | 5,488,629 |
| 38866333 | 8A | HAPPY | ELLENBURGER | TX | GARZA | 1958 | 8281 | 90,740 | 3,075,019 |
| 40295400 | 7C | HELUMA | ELLENBURGER | TX | UPTON | 1956 | 10590 | 2,957 | 4,097,691 |
| 42341500 | 7C | HOLT RANCH | ELLENBURGER | TX | CROCKETT | 1965 | 7897 | 5,772 | 2,380,554 |
| 44717500 | 7C | IRION 163 | ELLEN | TX | IRION | 1977 | 8916 | 7,885 | 2,605,958 |
| 45582200 | 8 | JAMESON N. | ELLEN | TX | MITCHELL | 1978 | 7157 | 3,680 | 1,602,269 |
| 49413400 | 7C | KING MOUNTAIN | ELLENBURGER | TX | UPTON | 1955 | 11775 | 235 | 6,890,744 |
| 61204001 | 7C | MIDWAY LANE | | TX | CROCKETT | 1947 | 7596 | 2,984 | 4,555,520 |
| 63756333 | 7B | MULLEN RANCH | ELLENBURGER | TX | STONEWALL | 1955 | 6440 | 7,624 | 1,093,028 |
| 67388500 | 7B | ONYX | ELLENBURGER | TX | STONEWALL | 1957 | 6489 | 0 | 1,697,041 |
| 69098332 | 7B | PARDUE | ELLENBURGER | TX | FISHER | 1949 | 5962 | 28,247 | 6,011,033 |
| 72214500 | 8A | POLAR, NORTH | ELLENBURGER | TX | KENT | 1950 | 7780 | 0 | 1,439,914 |
| 72225500 | 8A | POLLAN | ELLENBURGER | TX | GARZA | 1978 | 7733 | 0 | 2,931,773 |
| 82864664 | 8 | SHEFFIELD | ELLENBURGER | TX | PECOS | 1952 | 9272 | 0 | 2,366,006 |
| 87019200 | 7B | SUGGS | ELLENBURGER | TX | NOLAN | 1982 | 6482 | 81,452 | 9,683,164 |
| 87640500 | 8A | SWENSON-BARRON | ELLEN. | TX | GARZA | 1977 | 8000 | 0 | 13,153,109 |
| 88611142 | 8A | TEAS | ELLENBURGER | TX | GARZA | 1958 | 8396 | 4,761 | 1,100,062 |
| 90315666 | 7C | TODD, DEEP | ELLENBURGER | TX | CROCKETT | 1940 | 6232 | 209,230 | 44,300,279 |
| 92290333 | 8A | U-LAZY -S- | ELLENBURGER | TX | BORDEN | 1957 | 8633 | 0 | 2,338,392 |
| 98297500 | 7B | WITHERS | ELLENBURGER | TX | NOLAN | 1979 | 6520 | 15,718 | 1,364,325 |
| | | **Totals** | | | | | | **537,120** | **163,734,910** |

*Estimated production of Big Lake field from Ellenburger reservoir is 21 million bbl.
All production from Big Lake field is assigned to the Grayburg by the RRC (see Play 129 Grayburg High-Energy Platform Carbonate--Ozona Arch play).

Table 4. Ellenburger Karst-Modified Restricted Ramp Carbonate play (Play 102). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 587498 | 7C | ADAMC | ELLENBURGER | TX | UPTON | 1953 | 11575 | 19,257 | 1,162,037 |
| 2207380 | 7C | AMACKER-TIPPETT | ELLENBURGER | TX | UPTON | 1953 | 11890 | 9,398 | 17,917,650 |
| 2596200 | 8 | ANDECTOR | ELLENBURGER | TX | ECTOR | 1946 | 8545 | 276,880 | 177,718,593 |
| 2727500 | 8 | ANDREWS, NORTH | ELLENBURGER | TX | ANDREWS | 1959 | 12349 | 0 | 28,873,225 |
| 3278001 | 8 | APCO-WARNER | | TX | PECOS | 1939 | 4600 | 12,911 | 12,564,506 |
| 5166444 | 8 | BAKKE | ELLENBURGER | TX | ANDREWS | 1956 | 12400 | 0 | 23,722,974 |
| 5859333 | 8 | BARROW | ELLENBURGER | TX | ECTOR | 1955 | 13578 | 4,170 | 1,436,411 |
| 6671332 | 8 | BEDFORD | ELLENBURGER | TX | ANDREWS | 1950 | 11018 | 16,151 | 7,884,926 |
| 9202332 | 8 | BLOCK 9 | ELLENBURGER | TX | ANDREWS | 1958 | 12508 | 3,980 | 3,542,455 |
| 9250400 | 8 | BLOCK 12 | ELLENBURGER | TX | ANDREWS | 1952 | 10884 | 24,613 | 4,705,759 |
| 9251333 | 8 | BLOCK 12, EAST | ELLENBURGER | TX | ANDREWS | 1953 | 10117 | 0 | 9,262,118 |
| 9358540 | 8 | BLOCK 31 | ELLENBURGER | TX | CRANE | 1945 | 10291 | 28,860 | 6,266,474 |
| 8958200 | 8 | BLOCK A-34 | ELLENBURGER | TX | ANDREWS | 1954 | 13250 | 7,233 | 4,378,343 |
| 8990666 | 8 | BLOCK A-49 | ELLENBURGER | TX | ANDREWS | 1962 | 11200 | 8,041 | 1,623,307 |
| 18254600 | 8 | CIRCLE BAR | ELLEN | TX | ECTOR | 1962 | 12758 | 17,161 | 3,816,623 |
| 21292875 | 8 | COWDEN, SOUTH | 13800 | TX | ECTOR | 1966 | 13900 | 12,831 | 2,744,404 |
| 21292625 | 8 | COWDEN, SOUTH | ELLENBURGER | TX | ECTOR | 1954 | 12883 | 0 | 5,459,419 |
| 21577270 | 8 | CRAWAR | ELLENBURGER | TX | CRANE | 1954 | 8236 | 0 | 1,111,683 |
| 23380300 | 7C | DAVIS | ELLENBURGER | TX | UPTON | 1950 | 13050 | 0 | 1,370,746 |
| 23907284 | 8 | DEEP ROCK | ELLENBURGER | TX | ANDREWS | 1954 | 12252 | 23,030 | 14,245,387 |
| 25188600 | 8 | DOLLARHIDE | ELLENBURGER | TX | ANDREWS | 1947 | 10137 | 57,387 | 26,460,708 |
| 25189400 | 8 | DOLLARHIDE, EAST | ELLENBURGER | TX | ANDREWS | 1959 | 12610 | 61,894 | 6,432,601 |
| 25395332 | 8 | DORA ROBERTS | ELLENBURGER | TX | MIDLAND | 1954 | 12835 | 46,740 | 50,731,918 |
| 28843222 | 8 | EMBAR | ELLENBURGER | TX | ANDREWS | 1942 | 7977 | 8,143 | 22,646,307 |
| 28899249 | 8 | EMMA | ELLENBURGER | TX | ANDREWS | 1953 | 13307 | 26,198 | 54,500,181 |
| 30394375 | 8 | FASKEN | ELLENBURGER | TX | ANDREWS | 1953 | 12604 | 22,691 | 3,641,104 |
| 31768333 | 8 | FLYING -W- | ELLEN | TX | WINKLER | 1970 | 11768 | 0 | 1,003,126 |
| 33230400 | 8 | FULLERTON | ELLENBURGER | TX | ANDREWS | 1945 | 9945 | 0 | 2,067,603 |
| 33231250 | 8 | FULLERTON, EAST | ELLEN. | TX | ANDREWS | 1967 | 11428 | 3,077 | 1,236,825 |
| 33232510 | 8 | FULLERTON, NORTH | ELLENBURGER | TX | ANDREWS | 1991 | 9872 | 2,179 | 1,054,548 |
| 33235250 | 8 | FULLERTON, SOUTH | ELLENBURGER | TX | ANDREWS | 1948 | 10600 | 112,479 | 13,774,543 |
| 35197380 | 8 | GLASCO | ELLENBURGER | TX | ANDREWS | 1985 | 13806 | 36,343 | 2,830,825 |
| 35652248 | 8 | GOLDSMITH | ELLENBURGER | TX | ECTOR | 1947 | 9495 | 10,560 | 2,136,727 |
| 35654332 | 8 | GOLDSMITH, N. | ELLENBURGER | TX | ECTOR | 1954 | 8896 | 15,938 | 5,595,412 |
| 35659375 | 8 | GOLDSMITH, W. | ELLENBURGER | TX | ECTOR | 1954 | 9428 | 22,927 | 4,018,423 |
| 39176498 | 8 | HARPER | ELLENBURGER | TX | ECTOR | 1962 | 12436 | 101,351 | 23,900,923 |
| 39182666 | 8 | HARPER, SE. | ELLEN. | TX | ECTOR | 1965 | 12505 | 17,884 | 1,829,238 |
| 39969600 | 8 | HEADLEE | ELLENBURGER | TX | ECTOR | 1953 | 13106 | 0 | 38,326,414 |
| 44521498 | 8 | INEZ | ELLENBURGER | TX | ANDREWS | 1961 | 12505 | 0 | 16,436,191 |
| 47267228 | 8 | JORDAN | ELLENBURGER | TX | ECTOR | 1947 | 8914 | 47,880 | 31,726,443 |
| 49038071 | 8 | KERMIT | ELLENBURGER | TX | WINKLER | 1943 | 10744 | 34,730 | 5,521,825 |
| 49129330 | 8 | KEYSTONE | ELLENBURGER | TX | WINKLER | 1943 | 9524 | 266,296 | 146,847,044 |
| 49411500 | 8 | KING LAKE | ELLENBURGER | TX | ECTOR | 1988 | 11082 | 36,121 | 2,059,844 |
| 52624300 | 8 | LEA | ELLENBURGER | TX | CRANE | 1953 | 8165 | 19,653 | 20,496,500 |
| 53009500 | 8 | LEHN-APCO, SOUTH | ELLEN | TX | PECOS | 1977 | 4740 | 789 | 1,210,952 |
| 55256284 | 8 | LOWE | ELLENBURGER | TX | ANDREWS | 1957 | 13314 | 17,643 | 11,896,530 |
| 56822250 | 8 | MAGUTEX | ELLENBURGER | TX | ANDREWS | 1952 | 13840 | 41,194 | 17,610,065 |
| 57774332 | 8 | MARTIN | ELLENBURGER | TX | ANDREWS | 1946 | 8400 | 7,899 | 36,536,319 |
| 59339500 | 8 | MCELROY, NORTH | ELLENBURGER | TX | CRANE | 1973 | 12024 | 11,415 | 3,430,675 |
| 59419166 | 8 | MCFARLAND | ELLENBURGER | TX | ANDREWS | 1961 | 13898 | 21,201 | 5,636,171 |
| 60874500 | 8 | METZ, EAST | ELLENBURGER | TX | ECTOR | 1961 | 9046 | 5,571 | 2,984,224 |
| 61118332 | 8 | MIDLAND FARMS | ELLENBURGER | TX | ANDREWS | 1952 | 12672 | 88,495 | 50,853,026 |
| 61121666 | 8 | MIDLAND FARMS, NE. | ELLENBURGER | TX | ANDREWS | 1953 | 12540 | 8 | 7,643,557 |
| 62415332 | 8 | MONAHANS | ELLENBURGER | TX | WARD | 1942 | 10550 | 0 | 5,318,009 |
| 62417360 | 8 | MONAHANS, N. | ELLENBURGER | TX | WINKLER | 1955 | 11990 | 128,738 | 8,663,172 |
| 62703200 | 8 | MOONLIGHT | ELLENBURGER | TX | MIDLAND | 1983 | 13325 | 0 | 1,014,717 |
| 64890500 | 8 | NELSON | ELLENBURGER | TX | ANDREWS | 1946 | 10384 | 1,336 | 5,070,077 |
| 65766444 | 8 | NOLLEY | ELLEN. | TX | ANDREWS | 1968 | 13939 | 0 | 2,678,693 |
| 65967600 | 8 | NORMAN | ELLENBURGER | TX | GAINES | 1970 | 13865 | 120,891 | 2,195,849 |
| 70279250 | 7C | PEGASUS | ELLENBURGER | TX | UPTON | 1949 | 12530 | 122,277 | 96,008,159 |
| 70537330 | 8 | PENWELL | ELLENBURGER | TX | ECTOR | 1946 | 8888 | 15,718 | 14,203,574 |
| 73103666 | 8 | PRICHARD | ELLENBURGER | TX | ANDREWS | 1953 | 13475 | 14,572 | 1,061,819 |
| 74793333 | 8 | RATLIFF | ELLENBURGER | TX | ECTOR | 1954 | 13559 | 21,980 | 3,368,635 |
| 80474500 | 8 | SAND HILLS, EAST | ELLENBURGER | TX | CRANE | 1968 | 5703 | 54,158 | 2,253,367 |
| 80475500 | 8 | SAND HILLS, N. | ELLENBURGER | TX | CRANE | 1957 | 6030 | 24,284 | 1,177,511 |
| 82570300 | 8 | SHAFTER LAKE | ELLENBURGER | TX | ANDREWS | 1948 | 11685 | 8,945 | 6,629,516 |
| 87599284 | 8 | SWEETIE PECK | ELLENBURGER | TX | MIDLAND | 1950 | 13128 | 34,388 | 10,038,376 |
| 88071290 | 8 | TXL | ELLENBURGER | TX | ECTOR | 1949 | 9600 | 70,397 | 129,551,707 |

Table 4, continued. Ellenburger Karst-Modified Restricted Ramp Carbonate play (Play 102).

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 92548500 | 8 | UNIVERSITY BLOCK 13 | ELLEN. | TX | ANDREWS | 1960 | 10800 | 56,641 | 14,978,243 |
| 92618250 | 8 | UNIVERSITY WADDELL | ELLENBURGER | TX | CRANE | 1947 | 10620 | 0 | 9,039,824 |
| 93485300 | 8 | VENTEAM | ELLENBURGER | TX | ECTOR | 1995 | 13250 | 262,356 | 1,996,282 |
| 93958250 | 8 | VIREY | ELLENBURGER | TX | MIDLAND | 1954 | 13276 | 71,711 | 30,877,195 |
| 95108375 | 8 | WAR-SAN | ELLENBURGER | TX | MIDLAND | 1954 | 13070 | 46,946 | 14,916,750 |
| 96291333 | 8 | WEMAC | ELLENBURGER | TX | ANDREWS | 1954 | 13306 | 1,627 | 5,847,947 |
| 96756400 | 8 | WHEELER | ELLENBURGER | TX | WINKLER | 1942 | 10697 | 5,997 | 17,952,199 |
| 97834500 | 7C | WILSHIRE | ELLENBURGER | TX | UPTON | 1951 | 11944 | 0 | 41,080,326 |
| 94439400 | 8 | W. T. FORD | ELLENBURGER | TX | ECTOR | 1991 | 12260 | 0 | 1,072,228 |
| 99275375 | 8 | YARBROUGH & ALLEN | ELLENBURGER | TX | ECTOR | 1947 | 10490 | 23,234 | 40,502,338 |
| 99409500 | 8 | YORK | ELLENBURGER | TX | ECTOR | 1955 | 12395 | 11,603 | 2,636,804 |
| | | BRUNSON | ELLENBURGER | NM | LEA | 1945 | 8059 | 12,588 | 27,654,212 |
| | | DOLLARHIDE | ELLENBURGER | NM | LEA | 1951 | 10135 | 10,815 | 3,512,341 |
| | | FOWLER | ELLENBURGER | NM | LEA | 1949 | 9505 | 65,094 | 17,012,002 |
| | | JUSTIS | ELLENBURGER | NM | LEA | 1957 | 8115 | 6,598 | 7,663,268 |
| | | STATELINE | ELLENBURGER | NM | LEA | 1965 | 12100 | 0 | 4,191,567 |
| | | TEAGUE | ELLENBURGER | NM | LEA | 1950 | 9700 | 0 | 2,485,768 |
| | | TEAGUE NORTH | ELLENBURGER | NM | LEA | 1988 | 10200 | 0 | 1,772,980 |
| | | **Totals** | | | | | | **2,802,096** | **1,487,309,287** |

Table 5. Simpson Cratonic Sandstone play (Play 103). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 292001 | 8 | ABELL | | TX | PECOS | 1940 | 5400 | 2,308 | 8,106,194 |
| 293625 | 8 | ABELL, EAST | MCKEE | TX | PECOS | 1956 | 5415 | 6,553 | 2,322,612 |
| 293875 | 8 | ABELL, EAST | WADDELL, W. SEG. | TX | PECOS | 1957 | 6090 | 7,800 | 2,014,539 |
| 296500 | 8 | ABELL, NORTHWEST | MCKEE SAND | TX | PECOS | 1949 | 5432 | 0 | 1,435,103 |
| 2596400 | 8 | ANDECTOR | MCKEE | TX | ECTOR | 1948 | 7635 | 7,650 | 3,374,471 |
| 2596800 | 8 | ANDECTOR | WADDELL | TX | ECTOR | 1948 | 7835 | 9,882 | 2,029,953 |
| 9358270 | 8 | BLOCK 31 | CONNELL | TX | CRANE | 1948 | 10170 | 0 | 1,083,545 |
| 21577810 | 8 | CRAWAR | WADDELL | TX | WARD | 1955 | 7645 | 1,737 | 1,587,021 |
| 47267076 | 8 | JORDAN | CONNELL SAND | TX | ECTOR | 1948 | 8830 | 0 | 4,445,230 |
| 52624200 | 8 | LEA | CONNELL | TX | CRANE | 1953 | 8178 | 8,501 | 3,431,877 |
| 57774498 | 8 | MARTIN | MCKEE | TX | ANDREWS | 1945 | 8300 | 32,417 | 6,816,298 |
| 78936800 | 8 | RUNNING W | WADDELL | TX | CRANE | 1954 | 6148 | 67,370 | 25,266,119 |
| 80473372 | 8 | SAND HILLS | ORDOVICIAN | TX | CRANE | 1936 | 6300 | 14,256 | 13,143,342 |
| 88073500 | 8 | T X L, NORTH | WADDELL | TX | ECTOR | 1961 | 9386 | 4,291 | 2,716,712 |
| 91630001 | 8 | TUCKER | | TX | CRANE | 1946 | 5770 | 124 | 2,241,122 |
| 99275750 | 8 | YARBROUGH & ALLEN | WADDELL | TX | ECTOR | 1950 | 10110 | 2,850 | 1,235,313 |
| | | HARE | SIMPSON | NM | LEA | 1947 | 7550 | 38,743 | 17,193,665 |
| | | JUSTIS | MCKEE | NM | LEA | 1957 | 7700 | 0 | 1,312,000 |
| | | TEAGUE | SIMPSON | NM | LEA | 1948 | 9340 | 216,169 | 3,473,240 |
| | **Totals** | | | | | | | **420,651** | **103,228,356** |

Table 6. Fusselman Shallow Platform Carbonate play (Play 104). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 292667 | 8 | ABELL | SILURIAN-MONTOYA | TX | PECOS | 1948 | 4936 | 0 | 12,619,167 |
| 292725 | 8 | ABELL | SILURIAN - MONTOYA, N. W. | TX | CRANE | 1962 | 5110 | 6,772 | 1,432,119 |
| 3644852 | 8 | ARMER | 6350 | TX | CRANE | 1955 | 6340 | 15,822 | 4,779,874 |
| 250750 | 8 | A. W. | FUSSELMAN | TX | WINKLER | 1964 | 9717 | 0 | 1,348,292 |
| 6671498 | 8 | BEDFORD | FUSSELMAN | TX | ANDREWS | 1951 | 9702 | 4,906 | 1,854,661 |
| 7109500 | 7C | BENEDUM | FUSSELMAN | TX | UPTON | 1966 | 11110 | 50,999 | 2,931,937 |
| 8044400 | 8 | BIG SPRING | FUSSELMAN | TX | HOWARD | 1955 | 9589 | 34,539 | 7,238,047 |
| 9230426 | 8 | BLOCK 11 | FUSSELMAN | TX | ANDREWS | 1961 | 7956 | 1,836 | 1,069,231 |
| 12469666 | 8A | BROWNFIELD, S. | FUSSELMAN | TX | TERRY | 1968 | 12020 | 81,018 | 5,524,831 |
| 18535500 | 8A | CLARA GOOD | FUSSELMAN | TX | BORDEN | 1956 | 9740 | 9,383 | 1,158,807 |
| 19113750 | 8 | COAHOMA, N. | FUSSEL | TX | HOWARD | 1969 | 8791 | 16,167 | 2,778,608 |
| 20787001 | 8A | CORRIGAN | | TX | TERRY | 1950 | 11475 | 14,547 | 4,235,262 |
| 20788500 | 8A | CORRIGAN, EAST | FUSSELMAN | TX | TERRY | 1952 | 11615 | 102,547 | 4,669,363 |
| 25188800 | 8 | DOLLARHIDE | SILURIAN | TX | ANDREWS | 1947 | 8345 | 157,860 | 40,980,095 |
| 25189600 | 8 | DOLLARHIDE, EAST | SILURIAN | TX | ANDREWS | 1949 | 11000 | 0 | 1,337,356 |
| 26706333 | 8A | DUPREE | FUSSELMAN | TX | DAWSON | 1960 | 11670 | 11,175 | 1,608,926 |
| 28899332 | 8 | EMMA | FUSSELMAN | TX | ANDREWS | 1954 | 11288 | 0 | 1,933,151 |
| 29292400 | 7C | ESCONDIDO | FUSSELMAN | TX | CROCKETT | 1963 | 8560 | 2,398 | 1,060,327 |
| 30398500 | 8 | FASKEN, S. | FUSSELMAN | TX | ECTOR | 1957 | 12270 | 8,983 | 1,655,361 |
| 33989001 | 8 | GARDEN CITY | | TX | GLASSCOCK | 1946 | 9740 | 727 | 1,128,766 |
| 35652434 | 8 | GOLDSMITH | FUSSELMAN | TX | ECTOR | 1954 | 7763 | 1,595 | 4,696,451 |
| 35654830 | 8 | GOLDSMITH, N. | SILURIAN | TX | ECTOR | 1948 | 8255 | 3,464 | 1,524,694 |
| 35659500 | 8 | GOLDSMITH, W. | FUSSELMAN | TX | ECTOR | 1955 | 8294 | 1,621 | 2,672,229 |
| 35744666 | 8A | GOOD, SE. | FUSSELMAN | TX | BORDEN | 1958 | 9692 | 50,928 | 10,453,193 |
| 38255464 | 8 | HALLEY | MONTOYA | TX | WINKLER | 1956 | 10350 | 0 | 2,969,405 |
| 44521350 | 8 | INEZ | DEEP | TX | ANDREWS | 1989 | 11500 | 34,595 | 4,349,034 |
| 47267304 | 8 | JORDAN | FUSSELMAN | TX | ECTOR | 1951 | 7420 | 1,481 | 1,704,012 |
| 49129660 | 8 | KEYSTONE | SILURIAN | TX | WINKLER | 1955 | 8500 | 131,446 | 30,949,283 |
| 54590300 | 7C | LONE JOE DEEP | FUSSELMAN | TX | IRION | 1987 | 9046 | 123,223 | 8,076,439 |
| 55256710 | 8 | LOWE | SILURIAN | TX | ANDREWS | 1953 | 12818 | 27,168 | 14,948,341 |
| 55822500 | 8 | LUTHER, SE. | SILURIAN-DEVONIAN | TX | HOWARD | 1953 | 9855 | 440,822 | 28,797,594 |
| 59339700 | 8 | MCELROY, NORTH | SILURIAN | TX | CRANE | 1973 | 11049 | 30,508 | 1,015,002 |
| 61130001 | 8 | MIDLAND FARMS DEEP | | TX | ANDREWS | 1986 | 11924 | 140,003 | 13,227,411 |
| 61143400 | 8 | MID-MAR, EAST | FUSSELMAN | TX | MIDLAND | 1982 | 11711 | 8,750 | 2,750,895 |
| 62415415 | 8 | MONAHANS | FUSSELMAN | TX | WARD | 1954 | 8336 | 0 | 1,262,546 |
| 62417450 | 8 | MONAHANS, NORTH | FUSSELMAN | TX | WINKLER | 1957 | 10026 | 46,718 | 1,944,511 |
| 62417630 | 8 | MONAHANS, NORTH | MONTOYA | TX | WINKLER | 1956 | 10080 | 4,616 | 1,036,863 |
| 62711300 | 8 | MOORE | DEEP FSLM | TX | HOWARD | 1982 | 10032 | 33,495 | 5,073,129 |
| 63289500 | 8A | MOUND LAKE | FUSSELMAN | TX | TERRY | 1962 | 11320 | 0 | 2,532,705 |
| 69233400 | 8 | PARKS | FUSSELMAN-MONTOYA | TX | MIDLAND | 1983 | 12405 | 21,273 | 1,143,084 |
| 69563250 | 8A | PATRICIA | FUSSELMAN | TX | DAWSON | 1959 | 12020 | 23,626 | 3,983,286 |
| 70279375 | 7C | PEGASUS | FUSSELMAN | TX | MIDLAND | 1958 | 12100 | 29,675 | 3,378,847 |
| 70537396 | 8 | PENWELL | FUSSELMAN | TX | ECTOR | 1953 | 7490 | 0 | 1,848,684 |
| 88977426 | 8A | TEX-HAMON | FUSSELMAN | TX | DAWSON | 1962 | 11574 | 26,123 | 16,869,275 |
| 88977710 | 8A | TEX-HAMON | MONTOYA | TX | DAWSON | 1962 | 11675 | 0 | 4,833,739 |
| 90365300 | 8A | TOKIO | FUSSELMAN | TX | TERRY | 1979 | 12871 | 11,722 | 1,415,477 |
| 88071638 | 8 | TXL | SILURIAN | TX | ECTOR | 1946 | 8465 | 13,427 | 9,307,489 |
| 93958375 | 8 | VIREY | FUSSELMAN | TX | MIDLAND | 1955 | 12234 | 8,041 | 1,425,380 |
| 94187200 | 8 | W.A.M., SOUTH | FUSSELMAN | TX | STERLING | 1965 | 8677 | 7,778 | 2,470,860 |
| 95108500 | 8 | WAR-SAN | FUSSELMAN | TX | MIDLAND | 1954 | 12514 | 916 | 2,095,899 |
| 96756600 | 8 | WHEELER | SILURIAN | TX | WINKLER | 1945 | 9300 | 4,486 | 2,711,661 |
| 99733500 | 8 | ZEBULON | | TX | HOWARD | 1988 | 10324 | 54,676 | 1,448,904 |
| | | BOUGH | DEVONIAN | NM | LEA | 1965 | 11920 | 7356 | 3,798,039 |
| | | BRUNSON | FUSSELMAN | NM | LEA | 1980 | 7200 | 0 | 1,162,659 |
| | | CAPROCK EAST | DEVONIAN | NM | LEA | 1951 | 10450 | 56435 | 23,613,469 |
| | | CHISUM | DEVONIAN | NM | CHAVES | 1950 | 6490 | 33089 | 1,222,275 |
| | | DOLLARHIDE | FUSSELMAN | NM | LEA | 1952 | 8710 | 9930 | 6,620,935 |
| | | FOUR LAKES | DEVONIAN | NM | LEA | 1956 | 12809 | 0 | 1,865,501 |
| | | JUSTIS | FUSSELMAN | NM | LEA | 1958 | 5900 | 37687 | 10,987,716 |
| | | JUSTIS | MONTOYA | NM | LEA | 1958 | 6886 | 6872 | 4,772,033 |
| | | JUSTIS NORTH | FUSSELMAN | NM | LEA | 1961 | 7050 | 14529 | 3,356,310 |
| | | MCCORMACK | SILURIAN | NM | LEA | 1947 | 7145 | 10268 | 1,222,210 |
| | | PETERSON SOUTH | FUSSELMAN | NM | ROOSEVELT | 1978 | 7800 | 68868 | 3,386,739 |
| | | **Totals** | | | | | | **2,046,889** | **356,268,389** |

Table 7. Wristen Buildups and Platform Carbonate play (Play 105). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 1964333 | 8A | ALSABROOK | DEVONIAN | TX | GAINES | 1953 | 11135 | 0 | 3,815,802 |
| 2404333 | 8A | AMROW | DEVONIAN | TX | GAINES | 1954 | 12628 | 81,826 | 15,980,351 |
| 9172250 | 8 | BLOCK 6 | DEVONIAN | TX | ANDREWS | 1952 | 12530 | 28,758 | 4,478,026 |
| 9175500 | 8 | BLOCK 6, NE | SILURIAN | TX | ANDREWS | 1974 | 12471 | 79,329 | 3,623,929 |
| 9188250 | 8 | BLOCK 7 | DEVONIAN | TX | MARTIN | 1950 | 12280 | 56,478 | 5,209,687 |
| 8930333 | 8A | BLOCK A-7 | DEVONIAN | TX | GAINES | 1959 | 11100 | 34,318 | 1,699,349 |
| 8990333 | 8 | BLOCK A-49 | DEVONIAN | TX | ANDREWS | 1965 | 8637 | 32,136 | 2,088,379 |
| 9060333 | 8A | BLOCK D | DEVONIAN | TX | YOAKUM | 1957 | 11923 | 71,104 | 1,931,322 |
| 11308200 | 8A | BRAHANEY | DEVONIAN | TX | YOAKUM | 1979 | 11372 | 28,021 | 8,824,267 |
| 11313300 | 8A | BRAHANEY, NORTHWEST | DEVONIAN | TX | YOAKUM | 1982 | 11893 | 125,499 | 14,748,050 |
| 11314200 | 8A | BRAHANEY, W. | DEV | TX | YOAKUM | 1981 | 11645 | 29,944 | 1,447,939 |
| 11334300 | 8A | BRALLEY | SILURIAN | TX | YOAKUM | 1991 | 13108 | 167,650 | 1,927,011 |
| 11751001 | 8 | BREEDLOVE |  | TX | MARTIN | 1951 | 12078 | 147,679 | 31,736,195 |
| 12160600 | 8A | BRONCO | SILURO-DEVONIAN | TX | YOAKUM | 1952 | 11692 | 107,639 | 14,292,254 |
| 12978600 | 8 | BUCKWHEAT | SILURO-DEVONIAN | TX | HOWARD | 1989 | 10182 | 50,716 | 1,488,718 |
| 16860333 | 8A | CHAMPMON | DEV. | TX | GAINES | 1959 | 12735 | 31,725 | 1,334,656 |
| 25243500 | 8A | DOMINION | SILURIAN | TX | TERRY | 1979 | 13342 | 14,927 | 1,005,286 |
| 28873500 | 8A | EMERALD | SILURIAN | TX | YOAKUM | 1988 | 12372 | 152,558 | 1,550,264 |
| 30776500 | 8A | FIELDS | DEVONIAN | TX | YOAKUM | 1954 | 12030 | 6,799 | 4,042,266 |
| 31222600 | 8A | FLANAGAN | DEVONIAN | TX | GAINES | 1949 | 10345 | 29,621 | 2,600,285 |
| 33230900 | 8 | FULLERTON | 8500 | TX | ANDREWS | 1944 | 8658 | 181,239 | 51,119,358 |
| 33230300 | 8 | FULLERTON | DEVONIAN | TX | ANDREWS | 1987 | 8276 | 101,222 | 2,734,646 |
| 35197333 | 8 | GLASCO | DEVONIAN | TX | ANDREWS | 1953 | 12543 | 116,288 | 21,207,037 |
| 38832333 | 8A | HAP | DEVONIAN | TX | GAINES | 1955 | 12356 | 69,274 | 1,588,017 |
| 43878800 | 8 | HUTEX | DEVONIAN | TX | ANDREWS | 1953 | 12509 | 263,951 | 48,354,343 |
| 46132001 | 8A | JENKINS |  | TX | GAINES | 1948 | 9100 | 9,959 | 1,441,170 |
| 47187001 | 8A | JONES RANCH |  | TX | GAINES | 1945 | 11200 | 12,589 | 7,849,382 |
| 51812500 | 8A | LANDON | DEVONIAN | TX | COCHRAN | 1949 | 10913 | 3,013 | 1,676,236 |
| 56822125 | 8 | MAGUTEX | DEVONIAN | TX | ANDREWS | 1953 | 12504 | 229,455 | 48,627,371 |
| 58027500 | 8A | MARY TWO | DEVONIAN | TX | YOAKUM | 1981 | 13220 | 24,484 | 1,388,687 |
| 65766333 | 8 | NOLLEY | DEVONIAN | TX | ANDREWS | 1967 | 12311 | 17,416 | 4,321,428 |
| 65967400 | 8 | NORMAN | DEVONIAN | TX | GAINES | 1961 | 12214 | 66,696 | 7,734,263 |
| 66373250 | 8A | O D C | DEVONIAN | TX | GAINES | 1956 | 11993 | 11,656 | 2,812,852 |
| 74041100 | 8 | RK | DEVONIAN | TX | MARTIN | 1975 | 11815 | 525,717 | 21,538,949 |
| 79004250 | 8A | RUSSELL, NORTH | DEVONIAN | TX | GAINES | 1948 | 11125 | 125,995 | 79,739,814 |
| 81913500 | 8A | SEAGRAVES | SILURO - DEVONIAN | TX | GAINES | 1955 | 13028 | 0 | 4,944,608 |
| 81917666 | 8A | SEAGRAVES, S. | SILURO - DEVONIAN | TX | GAINES | 1955 | 12997 | 15,519 | 1,783,158 |
| 82225040 | 8A | SEMINOLE | DEVONIAN | TX | GAINES | 1977 | 11500 | 110,836 | 5,811,135 |
| 82229750 | 8A | SEMINOLE, NW. | DEVONIAN FB 2 | TX | GAINES | 1964 | 11456 | 10,604 | 1,508,906 |
| 82233200 | 8A | SEMINOLE, W. | DEVONIAN | TX | GAINES | 1956 | 11136 | 7,588 | 1,271,248 |
| 82233400 | 8A | SEMINOLE, W. | DEVONIAN FB 2 | TX | GAINES | 1957 | 10554 | 0 | 1,783,937 |
| 82570200 | 8 | SHAFTER LAKE | DEVONIAN | TX | ANDREWS | 1947 | 9425 | 192,314 | 27,459,338 |
| 89038500 | 8A | TEX-SIN | DEVONIAN | TX | GAINES | 1962 | 12285 | 84,781 | 7,998,812 |
| 91406500 | 8A | TRIPP | DEVONIAN | TX | GAINES | 1964 | 12577 | 19,646 | 1,657,515 |
| 92548250 | 8 | UNIVERSITY BLOCK 13 | DEVONIAN | TX | ANDREWS | 1960 | 8826 | 6,576 | 1,478,228 |
| 94748666 | 8A | WALKER | DEVONIAN | TX | COCHRAN | 1967 | 11818 | 0 | 1,692,316 |
| 96202500 | 8A | WELLS | DEVONIAN | TX | DAWSON | 1955 | 12083 | 102,137 | 8,760,790 |
| 96408166 | 8A | WESCOTT | DEV. | TX | GAINES | 1964 | 12360 | 38,035 | 3,933,775 |
| 96487500 | 8A | WEST | DEVONIAN | TX | YOAKUM | 1957 | 11058 | 75,184 | 23,898,463 |

Table 7, continued. Wristen Buildups and Platform Carbonate play (Play 105).

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| | | ANDERSON RANCH | DEVONIAN | NM | LEA | 1953 | 13374 | 6,311 | 8,732,227 |
| | | BAGLEY | SILURO-DEVONIAN | NM | LEA | 1949 | 10950 | 115,910 | 28,461,902 |
| | | BRONCO | SILURO-DEVONIAN | NM | LEA | 1955 | 11700 | 47,298 | 16,048,762 |
| | | BRONCO WEST | DEVONIAN | NM | LEA | 1965 | 12170 | 6,347 | 1,420,225 |
| | | CAUDILL | DEVONIAN | NM | LEA | 1954 | 13585 | 24,661 | 5,711,745 |
| | | CROSSROADS | SILURO-DEVONIAN | NM | LEA | 1948 | 12115 | 59,787 | 43,440,653 |
| | | CROSSROADS EAST | DEVONIAN | NM | LEA | 1956 | 12173 | 48,240 | 2,540,103 |
| | | CROSSROADS SOUTH | DEVONIAN | NM | LEA | 1954 | 12250 | 33,601 | 3,272,563 |
| | | CROSSROADS WEST | DEVONIAN | NM | LEA | 1959 | 12000 | 672 | 2,063,579 |
| | | DEAN | DEVONIAN | NM | LEA | 1955 | 13600 | 172 | 3,034,645 |
| | | DENTON | DEVONIAN | NM | LEA | 1949 | 11360 | 268,927 | 101,227,563 |
| | | DENTON SOUTH | DEVONIAN | NM | LEA | 1955 | 13110 | 4,627 | 3,748,807 |
| | | ECHOLS | DEVONIAN | NM | LEA | 1951 | 11500 | 0 | 4,622,000 |
| | | ECHOLS NORTH | DEVONIAN | NM | LEA | 1952 | 12057 | 18,995 | 1,416,811 |
| | | FOWLER | DEVONIAN | NM | LEA | 1955 | 7587 | 7,257 | 1,326,698 |
| | | GARRETT WEST | DEVONIAN | NM | LEA | 1970 | 12850 | 13,930 | 3,115,656 |
| | | GLADIOLA | DEVONIAN | NM | LEA | 1950 | 11859 | 42,531 | 52,841,901 |
| | | GLADIOLA SOUTHWEST | DEVONIAN | NM | LEA | 1960 | 12304 | 9,052 | 4,435,681 |
| | | KING | DEVONIAN | NM | LEA | 1956 | 12439 | 13,350 | 6,238,669 |
| | | KNOWLES | DEVONIAN | NM | LEA | 1949 | 12570 | 21,013 | 4,941,623 |
| | | KNOWLES SOUTH | DEVONIAN | NM | LEA | 1954 | 12140 | 95,498 | 9,712,376 |
| | | LANGLEY | DEVONIAN | NM | LEA | 1979 | 12150 | 2,850 | 1,370,899 |
| | | LEA | DEVONIAN | NM | LEA | 1960 | 3774 | 22,604 | 7,800,254 |
| | | LITTLE LUCKY LAKE | DEVONIAN | NM | CHAVES | 1958 | 11050 | 6,774 | 1,826,075 |
| | | LOVINGTON | DEVONIAN | NM | LEA | 1969 | 11570 | 14,997 | 1,735,773 |
| | | MCCORMACK SOUTH | SILURIAN | NM | LEA | 1967 | 7100 | 58,516 | 1,015,681 |
| | | MEDICINE ROCK | DEVONIAN | NM | LEA | 1961 | 12630 | 0 | 1,638,000 |
| | | MESCALERO | DEVONIAN | NM | LEA | 1952 | 9850 | 19,533 | 5,832,949 |
| | | MOORE | DEVONIAN | NM | LEA | 1952 | 10100 | 11,513 | 22,218,658 |
| | | RANGER LAKE WEST | DEVONIAN | NM | LEA | 1967 | 12850 | 8,424 | 1,185,371 |
| | | SHOE BAR | DEVONIAN | NM | LEA | 1953 | 12480 | 0 | 1,082,000 |
| | | SHOE BAR EAST | DEVONIAN | NM | LEA | 1968 | 13013 | 10,132 | 1,944,953 |
| | | SHUGART | SILURO-DEVONIAN | NM | EDDY | 1957 | 12362 | 4,805 | 1,114,333 |
| | | TEAGUE NORTHWEST | DEVONIAN | NM | LEA | 1992 | 7450 | 48,909 | 1,001,274 |
| | | VACUUM MID | DEVONIAN | NM | LEA | 1963 | 11644 | 5,183 | 1,766,983 |
| | | VACUUM SOUTH | DEVONIAN | NM | LEA | 1958 | 11546 | 22,592 | 8,930,675 |
| | | **Totals** | | | | | | **4,773,912** | **888,757,885** |

Table 8. Devonian Thirtyone Deepwater Chert play (Play 106). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 292203 | 8 | ABELL | DEVONIAN | TX | CRANE | 1953 | 5245 | 112,298 | 11,901,722 |
| 587332 | 7C | ADAMC | DEVONIAN | TX | UPTON | 1953 | 10490 | 28,430 | 5,208,779 |
| 4184333 | 8 | ATAPCO | DEVONIAN | TX | CRANE | 1959 | 5520 | 63,160 | 1,398,972 |
| 5524664 | 8 | BAR-MAR | DEV. | TX | CRANE | 1965 | 5258 | 205,886 | 5,143,157 |
| 6671166 | 8 | BEDFORD | DEVONIAN | TX | ANDREWS | 1945 | 8777 | 271,459 | 19,358,362 |
| 9230142 | 8 | BLOCK 11 | DEVONIAN | TX | ANDREWS | 1951 | 8230 | 71,365 | 11,110,212 |
| 9236333 | 8 | BLOCK 11, SW. | DEVONIAN | TX | ANDREWS | 1952 | 8160 | 8,153 | 5,113,708 |
| 9358450 | 8 | BLOCK 31 | DEVONIAN | TX | CRANE | 1945 | 8812 | 576,450 | 223,850,169 |
| 20607001 | 8 | CORDONA LAKE | | TX | CRANE | 1949 | 5470 | 450,129 | 32,578,669 |
| 20615500 | 8 | CORDONA LAKE, WEST | DEV. | TX | CRANE | 1965 | 5561 | 9,327 | 1,490,496 |
| 21577180 | 8 | CRAWAR | DEVONIAN, NORTH | TX | CRANE | 1958 | 6450 | 82,659 | 6,308,067 |
| 21907111 | 8 | CROSSETT | DEVONIAN | TX | CRANE | 1944 | 5440 | 404,815 | 25,568,056 |
| 21912333 | 8 | CROSSETT, S. | DETRITAL | TX | CROCKETT | 1965 | 4924 | 916,976 | 16,972,491 |
| 21912666 | 8 | CROSSETT, S. | DEVONIAN | TX | CROCKETT | 1956 | 5324 | 0 | 17,145,768 |
| 23543666 | 8 | DAWSON | DEVONIAN | TX | CRANE | 1955 | 5168 | 0 | 2,165,509 |
| 25188400 | 8 | DOLLARHIDE | DEVONIAN | TX | ANDREWS | 1955 | 8051 | 1,551,384 | 97,596,076 |
| 25189200 | 8 | DOLLARHIDE, EAST | DEVONIAN | TX | ANDREWS | 1949 | 10186 | 249,835 | 9,284,134 |
| 31768001 | 8 | FLYING -W- | | TX | WINKLER | 1949 | 9660 | 16,890 | 1,944,700 |
| 32555666 | 7C | FRANCO | DEVONIAN | TX | UPTON | 1964 | 10633 | 13,929 | 1,765,137 |
| 35652186 | 8 | GOLDSMITH | DEVONIAN | TX | ECTOR | 1948 | 7875 | 123,246 | 15,171,587 |
| 35654166 | 8 | GOLDSMITH, N. | DEVONIAN | TX | ECTOR | 1946 | 7900 | 23,752 | 9,021,147 |
| 38255174 | 8 | HALLEY | DEVONIAN | TX | WINKLER | 1956 | 9884 | 0 | 3,425,981 |
| 40296500 | 7C | HELUMA, EAST | DEVONIAN | TX | UPTON | 1973 | 8740 | 39,768 | 4,563,131 |
| 40300500 | 7C | HELUMA, SE | DEVONIAN | TX | UPTON | 1979 | 9024 | 28,200 | 1,613,983 |
| 49042250 | 8 | KERMIT, SOUTH | DEVONIAN-OIL | TX | WINKLER | 1957 | 8220 | 140 | 9,656,276 |
| 49129198 | 8 | KEYSTONE | DEVONIAN | TX | WINKLER | 1946 | 8040 | 6,597 | 15,403,476 |
| 49413200 | 7C | KING MOUNTAIN | DEVONIAN | TX | UPTON | 1956 | 10459 | 21,950 | 1,870,050 |
| 59560300 | 7C | MCKAY CREEK | CABALLOS | TX | TERRELL | 1979 | 6238 | 12,161 | 1,173,298 |
| 62417270 | 8 | MONAHANS, NORTH | DEVONIAN | TX | WINKLER | 1955 | 9447 | 1,963 | 6,347,324 |
| 68222080 | 8 | P&P | DEVONIAN | TX | CRANE | 1995 | 5508 | 188,795 | 1,375,704 |
| 70129348 | 8 | PECOS VALLEY | DEVONIAN 5400 | TX | PECOS | 1953 | 5771 | 168,096 | 8,388,267 |
| 70129812 | 8 | PECOS VALLEY | PERMIAN, LOWER | TX | PECOS | 1956 | 5140 | 39,022 | 3,236,057 |
| 70279125 | 7C | PEGASUS | DEVONIAN | TX | UPTON | 1952 | 12353 | 29,575 | 1,442,855 |
| 89408205 | 8 | THISTLE | CABALLOS NOVACULITE | TX | PECOS | 1984 | 2679 | 9,821 | 1,291,062 |
| 89690250 | 8 | THREE BAR | DEVONIAN | TX | ANDREWS | 1945 | 8385 | 126,428 | 41,023,054 |
| 91450333 | 8 | TROPORO | DEVONIAN | TX | CRANE | 1957 | 5404 | 61,872 | 5,576,672 |
| 91455500 | 8 | TROPORO, N | DEVONIAN | TX | CRANE | 1979 | 5555 | 20,556 | 1,261,495 |
| 91803200 | 8 | TUNIS CREEK | DEVONIAN | TX | PECOS | 1982 | 6835 | 103,474 | 3,607,730 |
| 88071174 | 8 | TXL | DEVONIAN | TX | ECTOR | 1944 | 8050 | 58,311 | 58,747,516 |
| 88071232 | 8 | TXL | DEVONIAN-MAIN PAY | TX | ECTOR | 1970 | 8075 | 29,758 | 2,465,157 |
| 92618125 | 8 | UNIVERSITY WADDELL | DEVONIAN | TX | CRANE | 1949 | 9040 | 529,063 | 70,267,302 |
| 96756200 | 8 | WHEELER | DEVONIAN | TX | WINKLER | 1945 | 8590 | 15,734 | 10,348,368 |
| 99275250 | 8 | YARBROUGH & ALLEN | DEVONIAN | TX | ECTOR | 1954 | 8505 | 45,369 | 3,569,192 |
| | | DOLLARHIDE | DEVONIAN | NM | LEA | 1952 | 8167 | 69725 | 9,179,120 |
| | | **Totals** | | | | | | **6,786,521** | **785,929,988** |

Table 9. Devonian Thirtyone Ramp Carbonate play (Play 107). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 2727250 | 8 | ANDREWS, N. | DEVONIAN | TX | ANDREWS | 1960 | 10424 | 84,434 | 7,844,331 |
| 2730284 | 8 | ANDREWS, SOUTH | DEVONIAN | TX | ANDREWS | 1953 | 11075 | 5,759 | 10,316,428 |
| 4605222 | 8 | AZALEA | DEVONIAN | TX | MIDLAND | 1957 | 11520 | 35,158 | 1,714,524 |
| 5166333 | 8 | BAKKE | DEVONIAN | TX | ANDREWS | 1956 | 10500 | 59,408 | 17,106,630 |
| 9202166 | 8 | BLOCK 9 | DEVONIAN | TX | ANDREWS | 1960 | 12540 | 3,612 | 1,540,950 |
| 12763333 | 8 | BRYANT -G- | DEVONIAN | TX | MIDLAND | 1979 | 12002 | 563,813 | 1,643,736 |
| 23907142 | 8 | DEEP ROCK | DEVONIAN | TX | ANDREWS | 1963 | 10063 | 18,460 | 1,713,689 |
| 25395166 | 8 | DORA ROBERTS | DEVONIAN | TX | MIDLAND | 1955 | 12010 | 16,055 | 2,528,808 |
| 28843111 | 8 | EMBAR | DEVONIAN | TX | ANDREWS | 1954 | 9346 | 10,846 | 1,335,402 |
| 28899166 | 8 | EMMA | DEVONIAN | TX | ANDREWS | 1954 | 10192 | 6,778 | 5,753,019 |
| 33176284 | 8 | FUHRMAN-MASCHO | DEVONIAN | TX | ANDREWS | 1956 | 10000 | 12,649 | 1,835,504 |
| 35652310 | 8 | GOLDSMITH | FIGURE 5 DEVONIAN | TX | ECTOR | 1956 | 7760 | 0 | 1,358,571 |
| 39176332 | 8 | HARPER | DEVONIAN | TX | ECTOR | 1962 | 10005 | 87,721 | 10,515,508 |
| 39969400 | 8 | HEADLEE | DEVONIAN | TX | ECTOR | 1953 | 11756 | 0 | 14,167,925 |
| 39971500 | 8 | HEADLEE, N. | DEVONIAN | TX | ECTOR | 1956 | 12210 | 49,323 | 6,195,590 |
| 91350100 | 8 | TRIPLE-N | DEVONIAN | TX | ANDREWS | 1957 | 10600 | 3,706 | 1,072,723 |
| 92534250 | 8 | UNIVERSITY BLOCK 9 | DEVONIAN | TX | ANDREWS | 1954 | 10450 | 789,597 | 23,606,166 |
| | | **Totals** | | | | | | **1,747,319** | **110,249,504** |

Table 10. Mississippian Platform Carbonate play (Play 108).

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 11308333 | 8A | BRAHANEY | MISSISSIPPIAN | TX | YOAKUM | 1960 | 10880 | 11,119 | 4,268,423 |
| 24377300 | 8A | DEROEN | MISSISSIPPIAN | TX | DAWSON | 1981 | 10182 | 58,502 | 2,002,217 |
| 31690001 | 8A | FLUVANNA | | TX | BORDEN | 1951 | 8173 | 10,857 | 5,788,200 |
| 34961250 | 8A | GIN | MISS. | TX | DAWSON | 1965 | 11403 | 5,984 | 1,148,179 |
| 51742333 | 8A | LAMESA, WEST | MISS. | TX | DAWSON | 1959 | 11280 | 5,303 | 1,903,803 |
| | | **Totals** | | | | | | **91,765** | **15,110,822** |

Table 11. Northwest Shelf Strawn Patch Reef play (Play 109).

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| | | BIG EDDY | STRAWN | NM | EDDY | 1966 | 11333 | 0 | 1,402,000 |
| | | BURTON FLAT EAST | STRAWN | NM | EDDY | 1976 | 10600 | 67,662 | 2,990,681 |
| | | CASEY | STRAWN | NM | LEA | 1975 | 11326 | 17,989 | 3,414,520 |
| | | CASS | PENNSYLVANIAN | NM | LEA | 1944 | 7700 | 0 | 2,885,000 |
| | | GOLDEN LANE | STRAWN | NM | EDDY | 1969 | 11098 | 18,432 | 1,448,602 |
| | | HUMBLE CITY | STRAWN | NM | EDDY | 1972 | 11429 | 24,093 | 1,303,341 |
| | | HUMBLE CITY SOUTH | STRAWN | NM | LEA | 1982 | 11520 | 20,520 | 3,444,361 |
| | | LOVINGTON NORTHEAST | PENNSYLVANIAN | NM | LEA | 1952 | 11256 | 0 | 16,921,580 |
| | | LOVINGTON WEST | STRAWN | NM | LEA | 1985 | 11594 | 479,493 | 5,162,551 |
| | | LUSK | STRAWN | NM | LEA & EDDY | 1960 | 11168 | 38,447 | 20,682,947 |
| | | REEVES | PENNSYLVANIAN | NM | LEA | 1956 | 10950 | 14,066 | 1,286,874 |
| | | SHIPP | STRAWN | NM | LEA | 1985 | 11138 | 43,428 | 7,624,050 |
| | | SHOE BAR NORTH | STRAWN | NM | LEA | 1973 | 11275 | 340,752 | 1,297,324 |
| | | **Totals** | | | | | | **1,064,882** | **69,863,831** |

Table 12. Northwest Shelf Upper Pennsylvanian Carbonate play (Play 110).

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| | | ALLISON | PENNSYLVANIAN | NM | LEA | 1954 | 9673 | 29,526 | 23,833,082 |
| | | ANDERSON RANCH NORTH | CISCO CANYON | NM | LEA | 1984 | 11498 | 9,827 | 1,321,870 |
| | | BAGLEY | PENNSYLVANIAN | NM | LEA | 1949 | 9190 | 2,664 | 4,339,919 |
| | | BAGLEY NORTH | PERMO PENN | NM | LEA | 1957 | 10000 | 143,913 | 52,951,956 |
| | | BAR-U | PENNSYLVANIAN | NM | LEA | 1964 | 9100 | 42,021 | 1,364,117 |
| | | BAUM | UPPER PENNSYLVANIAN | NM | LEA | 1955 | 9940 | 34,221 | 15,224,467 |
| | | BOUGH | PERMO PENN | NM | LEA | 1949 | 9617 | 0 | 6,329,000 |
| | | CERCA | UPPER PENNSYLVANIAN | NM | LEA | 1968 | 10397 | 0 | 1,975,473 |
| | | CROSSROADS | PENNSYLVANIAN | NM | LEA | 1949 | 9750 | 0 | 2,170,000 |
| | | DAGGER DRAW NORTH | UPPER PENN | NM | EDDY | 1974 | 7550 | 1,805,612 | 48,909,673 |
| | | DAGGER DRAW SOUTH | UPPER PENN | NM | EDDY | 1971 | 7506 | 419,638 | 16,214,241 |
| | | DEAN | PERMO PENN | NM | LEA | 1955 | 11500 | 15,455 | 6,165,150 |
| | | FLYING M SOUTH | BOUGH | NM | LEA | 1965 | 9020 | 0 | 1,211,000 |
| | | HIGH PLAINS | PERMO PENN | NM | LEA | 1985 | 10400 | 0 | 1,056,081 |
| | | HIGHTOWER EAST | UPPER PENNSYLVANIAN | NM | LEA | 1959 | 10218 | 9,666 | 1,054,219 |
| | | INBE | PERMO PENN | NM | LEA | 1962 | 9658 | 8,817 | 16,439,579 |
| | | INDIAN BASIN | UPPER PENNSYLVANIAN | NM | EDDY | 1963 | 7370 | 1,914,766 | 13,274,441 |
| | | JENKINS | CISCO | NM | LEA | 1963 | 9750 | 0 | 2,099,000 |
| | | LAZY J | PENNSYLVANIAN | NM | LEA | 1952 | 9600 | 30,552 | 7,630,855 |
| | | LEAMEX | PENNSYLVANIAN | NM | LEA | 1956 | 11340 | 3,770 | 1,367,438 |
| | | MILNESAND | PENNSYLVANIAN | NM | ROOSEVELT | 1956 | 9202 | 0 | 1,001,000 |
| | | NONOMBRE | UPPER PENNSYLVANIAN | NM | LEA | 1965 | 10345 | 0 | 1,077,000 |
| | | PRAIRIE SOUTH | CISCO | NM | ROOSEVELT | 1960 | 9651 | 0 | 2,906,000 |
| | | RANGER LAKE | PENNSYLVANIAN | NM | LEA | 1956 | 10300 | 7,025 | 5,084,059 |
| | | SAUNDERS | PERMO-UPPER PENN | NM | LEA | 1980 | 9800 | 128,353 | 38,920,906 |
| | | SAUNDERS EAST | PERMO PENN | NM | LEA | 1962 | 10363 | 5,004 | 2,716,804 |
| | | SHOE BAR | PENNSYLVANIAN | NM | LEA | 1954 | 10440 | 0 | 1,056,568 |
| | | TOBAC | PENNSYLVANIAN | NM | CHAVES | 1964 | 9058 | 14,957 | 9,227,853 |
| | | TRAVIS | UPPER PENNSYLVANIAN | NM | EDDY | 1977 | 9825 | 101,059 | 1,986,681 |
| | | TRES PAPALOTES | PENNSYLVANIAN | NM | LEA | 1970 | 10400 | 24,567 | 1,942,584 |
| | | TRES PAPALOTES WEST | PENNSYLVANIAN | NM | LEA | 1972 | 10400 | 0 | 1,237,313 |
| | | TULK | PENNSYLVANIAN | NM | LEA | 1965 | 9856 | 10,017 | 1,809,541 |
| | | VACUUM | UPPER PENNSYLVANIAN | NM | LEA | 1964 | 10000 | 78,567 | 6,613,696 |
| | | VADA | PENNSYLVANIAN | NM | ROOSEVELT & | 1967 | 9800 | 31,165 | 53,336,607 |
| | | **Totals** | | | | | | **4,871,162** | **353,848,173** |

Table 13. Pennsylvanian Platform Carbonate play (Play 111). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 587166 | 7C | ADAMC | BEND | TX | UPTON | 1958 | 9236 | 806 | 1,289,736 |
| 2207608 | 7C | AMACKER-TIPPETT | STRAWN | TX | UPTON | 1954 | 9870 | 3,822 | 1,842,947 |
| 2212111 | 7C | AMACKER-TIPPETT, S. | BEND | TX | UPTON | 1961 | 9848 | 11,984 | 6,908,189 |
| 2213250 | 7C | AMACKER-TIPPETT, SE | BEND 10600 | TX | UPTON | 1966 | 10637 | 19,801 | 4,159,301 |
| 2725500 | 8 | ANDREWS | PENNSYLVANIAN | TX | ANDREWS | 1954 | 9220 | 0 | 15,502,674 |
| 2727750 | 8 | ANDREWS, NORTH | STRAWN | TX | ANDREWS | 1959 | 9589 | 0 | 3,673,474 |
| 3177500 | 8A | ANTON, SOUTH | STRAWN | TX | HOCKLEY | 1957 | 9952 | 3,914 | 1,178,657 |
| 3520500 | 8 | ARENOSO | STRAWN DETRITUS | TX | WINKLER | 1965 | 8587 | 100,645 | 22,978,851 |
| 4605080 | 8 | AZALEA | ATOKA | TX | MIDLAND | 1973 | 10898 | 25,979 | 2,996,387 |
| 5166555 | 8 | BAKKE | PENN. | TX | ANDREWS | 1956 | 8956 | 12,190 | 12,336,328 |
| 9359250 | 8 | BLOCK 31, EAST | ATOKA | TX | CRANE | 1965 | 8122 | 1,748 | 1,225,223 |
| 9362500 | 8 | BLOCK 31, NW. | PENN UPPER | TX | CRANE | 1969 | 7907 | 22,107 | 4,489,708 |
| 9450200 | 7C | BLOCK 42 | PENN | TX | UPTON | 1956 | 9450 | 19,971 | 2,559,545 |
| 8958800 | 8 | BLOCK A-34 | STRAWN | TX | ANDREWS | 1954 | 9916 | 0 | 1,100,472 |
| 11240500 | 8 | BRADFORD RANCH | ATOKA | TX | MIDLAND | 1979 | 11221 | 4,779 | 5,717,992 |
| 21287250 | 8 | COWDEN | CISCO | TX | ECTOR | 1955 | 8846 | 91,618 | 6,348,910 |
| 21289180 | 8 | COWDEN, NORTH | CANYON | TX | ECTOR | 1973 | 9094 | 37,950 | 1,428,470 |
| 21292750 | 8 | COWDEN, SOUTH | PENNSYLVANIAN | TX | ECTOR | 1955 | 8360 | 4,554 | 1,095,207 |
| 23131250 | 8 | DARMER | CANYON | TX | WINKLER | 1964 | 8500 | 42,577 | 2,323,635 |
| 23138500 | 8 | DARMER, NE. | PENN. | TX | WINKLER | 1978 | 8256 | 13,649 | 1,055,362 |
| 23907710 | 8 | DEEP ROCK | PENN. | TX | ANDREWS | 1961 | 9037 | 76,028 | 7,857,006 |
| 24396100 | 8 | DESPERADO | ATOKA | TX | MIDLAND | 1984 | 10845 | 56,793 | 3,642,912 |
| 24489380 | 8 | DEWEY LAKE, S. | STRAWN | TX | GLASSCOCK | 1983 | 10055 | 18,543 | 1,115,433 |
| 25395100 | 8 | DORA ROBERTS | CONSOLIDATED | TX | MIDLAND | 1995 | 10341 | 34,294 | 2,371,206 |
| 25585500 | 8A | DOSS | CANYON | TX | GAINES | 1949 | 8850 | 0 | 1,712,794 |
| 28899747 | 8 | EMMA | STRAWN | TX | ANDREWS | 1958 | 9123 | 2,822 | 3,239,757 |
| 29507500 | 8 | ESTES BLOCK 34 | PENN. | TX | WARD | 1957 | 8150 | 29,578 | 4,999,188 |
| 30394500 | 8 | FASKEN | PENN. | TX | ECTOR | 1956 | 10158 | 32,773 | 5,955,633 |
| 35653777 | 8 | GOLDSMITH, E. | PENNSYLVANIAN | TX | ECTOR | 1953 | 8621 | 4,224 | 1,655,075 |
| 38227333 | 8 | HALLANAN | STRAWN | TX | MIDLAND | 1952 | 10570 | 3,824 | 4,202,854 |
| 39176830 | 8 | HARPER | STRAWN | TX | ECTOR | 1962 | 9028 | 35,940 | 1,014,517 |
| 40295600 | 7C | HELUMA | PENN. | TX | UPTON | 1956 | 8030 | 10,867 | 1,930,528 |
| 37821710 | 8 | H. S. A. | PENNSYLVANIAN | TX | WARD | 1960 | 8088 | 1,413 | 3,516,869 |
| 43083250 | 8A | HUAT | CANYON | TX | GAINES | 1961 | 10470 | 51,032 | 6,037,105 |
| 44238500 | 8A | IDALOU | STRAWN | TX | LUBBOCK | 1970 | 9264 | 10,230 | 2,063,298 |
| 46134250 | 8A | JENKINS, NORTH | CANYON | TX | GAINES | 1952 | 8590 | 0 | 1,079,745 |
| 47007600 | 8 | JOHNSON | PENN | TX | ECTOR | 1973 | 9261 | 0 | 1,132,603 |
| 47267456 | 8 | JORDAN | PENNSYLVANIAN | TX | CRANE | 1953 | 7830 | 0 | 2,104,294 |
| 49415545 | 7C | KING MOUNTAIN, N. | CISCO | TX | UPTON | 1975 | 8764 | 7,937 | 2,014,219 |
| 51812750 | 8A | LANDON | STRAWN | TX | COCHRAN | 1947 | 10340 | 2,714 | 1,210,407 |
| 52567500 | 8 | LAZY R | STRAWN DETRITUS | TX | ECTOR | 1963 | 8307 | 2,689 | 1,211,321 |
| 53411710 | 8A | LEVELLAND | STRAWN | TX | HOCKLEY | 1957 | 10120 | 0 | 1,044,056 |
| 53414500 | 8A | LEVELLAND, NE. | STRAWN | TX | HOCKLEY | 1964 | 10084 | 15,627 | 3,448,189 |
| 59419498 | 8 | MCFARLAND | PENNSYLVANIAN | TX | ANDREWS | 1956 | 10423 | 15,707 | 5,053,412 |
| 60138500 | 8 | MEANS, EAST | STRAWN | TX | ANDREWS | 1954 | 10616 | 14,460 | 4,041,930 |
| 61473500 | 8 | MILLER BLOCK B-29 | PENN. | TX | WARD | 1959 | 8104 | 3,428 | 2,737,993 |
| 62416666 | 8 | MONAHANS, E. | PENN., LO. | TX | WINKLER | 1964 | 8873 | 6,913 | 1,325,184 |
| 62418666 | 8 | MONAHANS, NE. | PENN DETRITAL, UP | TX | WINKLER | 1968 | 8128 | 14,434 | 3,878,539 |
| 62703400 | 8 | MOONLIGHT | MISSISSIPPIAN | TX | MIDLAND | 1984 | 11599 | 18,387 | 1,162,891 |
| 65766111 | 8 | NOLLEY | CANYON | TX | ANDREWS | 1967 | 10384 | 19,572 | 2,131,200 |
| 69193568 | 8 | PARKER | PENNSYLVANIAN | TX | ANDREWS | 1954 | 9087 | 13,914 | 8,334,854 |
| 69200500 | 8 | PARKER, WEST | PENN. | TX | ANDREWS | 1967 | 9046 | 5,109 | 1,151,180 |
| 69233498 | 8 | PARKS | PENNSYLVANIAN | TX | MIDLAND | 1950 | 10440 | 63,991 | 15,249,943 |
| 70279500 | 7C | PEGASUS | PENNSYLVANIAN | TX | UPTON | 1951 | 10470 | 123,311 | 17,127,951 |
| 74590075 | 8A | RAND-PAULSON | CANYON | TX | HOCKLEY | 1995 | 9638 | 39,819 | 1,123,263 |
| 78167001 | 8A | ROPES | | TX | HOCKLEY | 1950 | 9290 | 16,910 | 25,593,426 |
| 78175333 | 8A | ROPES, WEST | CISCO SAND | TX | HOCKLEY | 1953 | 9875 | 5,449 | 7,217,081 |
| 79659700 | 8 | SAINT LAWRENCE | STRAWN | TX | GLASSCOCK | 1983 | 9890 | 11,994 | 1,469,268 |
| 81913750 | 8A | SEAGRAVES | STRAWN | TX | GAINES | 1956 | 11243 | 7,155 | 1,049,161 |
| 82231540 | 8A | SEMINOLE, SE. | STRAWN | TX | GAINES | 1973 | 10792 | 10,447 | 2,249,644 |
| 84347333 | 8A | SMYER, N. | CANYON | TX | HOCKLEY | 1956 | 9630 | 0 | 5,195,857 |
| 84347666 | 8A | SMYER, N. | STRAWN | TX | HOCKLEY | 1956 | 9968 | 0 | 6,354,886 |
| 87599568 | 8 | SWEETIE PECK | PENNSYLVANIAN | TX | MIDLAND | 1960 | 10342 | 5,911 | 2,158,236 |
| 89134750 | 7C | TEXEL | PENNSYLVANIAN | TX | UPTON | 1954 | 9143 | 5,441 | 1,621,367 |
| 91350600 | 8 | TRIPLE-N | PENN., UPPER | TX | ANDREWS | 1958 | 8912 | 47,044 | 16,084,222 |
| 88071522 | 8 | TXL | PENNSYLVANIAN | TX | ECTOR | 1956 | 8450 | 0 | 1,045,392 |
| 92534500 | 8 | UNIVERSITY BLOCK 9 | PENN. | TX | ANDREWS | 1954 | 8956 | 292,047 | 15,782,648 |
| 93958100 | 8 | VIREY | CONSOLIDATED | TX | MIDLAND | 1995 | 10844 | 57,783 | 3,429,592 |
| 94640500 | 8 | WAGON WHEEL | PENN | TX | WARD | 1979 | 8812 | 367,335 | 9,445,581 |
| 95138406 | 8 | WARD, SOUTH | PENN. DETRI., UP. | TX | WARD | 1963 | 7700 | 5,000 | 1,631,943 |
| 95108090 | 8 | WAR-SAN | CONSOLIDATED | TX | MIDLAND | 1995 | 10794 | 34,375 | 3,223,679 |
| 96408664 | 8A | WESCOTT | STRAWN | TX | GAINES | 1954 | 11008 | 44,214 | 5,564,505 |
| 97834750 | 7C | WILSHIRE | PENNSYLVANIAN | TX | UPTON | 1952 | 9810 | 4,304 | 1,374,833 |
| 99583600 | 8 | YUCCA BUTTE, W | STRAWN | TX | PECOS | 1975 | 8304 | 6,405 | 1,889,536 |
| | | **Totals** | | | | | | **2,076,281** | **340,469,274** |

Table 14. Pennsylvanian and Lower Permian Horseshoe Atoll Carbonate play (Play 112). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 450250 | 8A | ACKERLY, NORTH | CANYON REEF | TX | DAWSON | 1958 | 9154 | 11,621 | 1,198,872 |
| 450375 | 8A | ACKERLY, NORTH | CISCO | TX | DAWSON | 1972 | 8766 | 0 | 1,106,255 |
| 570500 | 8A | ADAIR | WOLFCAMP | TX | TERRY | 1950 | 8505 | 41,192 | 52,422,109 |
| 573500 | 8A | ADAIR, NORTHEAST | WOLFCAMP | TX | TERRY | 1954 | 8846 | 11,361 | 1,326,016 |
| 3250510 | 8A | APCLARK | STRAWN | TX | BORDEN | 1996 | 8534 | 159,265 | 1,231,864 |
| 4690300 | 8 | B.C. | CANYON | TX | HOWARD | 1985 | 9041 | 15,035 | 1,226,734 |
| 12476400 | 8A | BROWNFIELD, S. | STRAWN | TX | TERRY | 1981 | 10613 | 20,545 | 1,349,752 |
| 12469333 | 8A | BROWNFIELD, SOUTH | CANYON | TX | TERRY | 1950 | 9330 | 5,381 | 5,252,940 |
| 14627666 | 8A | CAIN | STRAWN | TX | GARZA | 1959 | 7652 | 10,735 | 1,047,176 |
| 14215250 | 8 | C. C. GUNN | CANYON REEF | TX | HOWARD | 1987 | 7564 | 30,109 | 1,006,890 |
| 19346142 | 8A | COGDELL | AREA | TX | KENT | 1949 | 6796 | 600,930 | 264,228,838 |
| 19347250 | 8A | COGDELL, EAST | CANYON | TX | SCURRY | 1958 | 6813 | 25,162 | 5,745,654 |
| 19351333 | 8A | COGDELL, SE. | CANYON 6800 | TX | SCURRY | 1970 | 6832 | 3,718 | 1,935,449 |
| 24562142 | 8A | DIAMOND -M- | CANYON LIME AREA | TX | SCURRY | 1948 | 6569 | 1,076,585 | 248,878,432 |
| 25728500 | 8A | DOUBLE J | CANYON REEF | TX | BORDEN | 1969 | 6641 | 82,743 | 4,335,241 |
| 25957600 | 8A | DOVER | STRAWN | TX | GARZA | 1985 | 8123 | 54,320 | 1,268,004 |
| 28829500 | 8A | ELZON, W. | STRAWN 6950 | TX | KENT | 1967 | 6972 | 20 | 1,674,677 |
| 31690750 | 8A | FLUVANNA | STRAWN | TX | BORDEN | 1954 | 7769 | 32,125 | 13,893,241 |
| 31697847 | 8A | FLUVANNA, SW. | STRAWN, UPPER | TX | BORDEN | 1973 | 7902 | 8,245 | 3,048,201 |
| 33191250 | 8A | FULLER, EAST | CANYON | TX | SCURRY | 1961 | 6846 | 20,059 | 2,016,286 |
| 34849500 | 8A | GILL | PENN. REEF 6900 | TX | SCURRY | 1970 | 6937 | 86,966 | 1,155,277 |
| 35738001 | 8A | GOOD | | TX | BORDEN | 1949 | 7905 | 97,619 | 49,768,450 |
| 35741500 | 8A | GOOD, NORTHEAST | CANYON REEF | TX | BORDEN | 1953 | 8066 | 62,258 | 3,509,246 |
| 35744333 | 8A | GOOD, SE. | CANYON REEF | TX | BORDEN | 1959 | 8123 | 0 | 1,095,717 |
| 38866666 | 8A | HAPPY | STRAWN | TX | GARZA | 1958 | 7951 | 1,367 | 1,839,792 |
| 40716333 | 8A | HERMLEIGH | STRAWN | TX | SCURRY | 1953 | 6530 | 27,627 | 1,051,427 |
| 41816333 | 8A | HOBO | PENNSYLVANIAN | TX | BORDEN | 1951 | 7100 | 33,656 | 12,964,339 |
| 48583001 | 8A | KELLY-SNYDER | | TX | SCURRY | 1948 | 6795 | 3,183,905 | 1,264,215,085 |
| 49678500 | 8A | KIRKPATRICK | PENN. | TX | GARZA | 1961 | 7902 | 1,367 | 1,534,724 |
| 55578500 | 8A | LUCY, NORTH | PENN | TX | BORDEN | 1973 | 7830 | 13,944 | 2,259,712 |
| 55818333 | 8 | LUTHER, NORTH | CANYON REEF | TX | HOWARD | 1952 | 7950 | 15 | 1,789,764 |
| 55975500 | 8A | LYN KAY | 6150 | TX | KENT | 1975 | 6164 | 27,520 | 1,157,730 |
| 61046250 | 8 | MIDDLETON | CANYON REEF | TX | HOWARD | 1986 | 8536 | 51,998 | 1,285,697 |
| 63799500 | 8A | MUNGERVILLE | PENNSYLVANIAN | TX | DAWSON | 1951 | 8570 | 82,273 | 9,030,669 |
| 64217500 | 8A | MYRTLE, NW. | STRAWN | TX | BORDEN | 1967 | 8030 | 125 | 1,013,491 |
| 64221666 | 8A | MYRTLE, W. | STRAWN | TX | BORDEN | 1956 | 8072 | 3,498 | 2,662,450 |
| 66669500 | 8 | OCEANIC | PENNSYLVANIAN | TX | HOWARD | 1953 | 8140 | 136,138 | 24,059,565 |
| 66672500 | 8 | OCEANIC, N.E. | PENNSYLVANIAN | TX | BORDEN | 1968 | 8135 | 7,463 | 1,495,837 |
| 70661300 | 8 | PERRIWINKLE | CANYON | TX | MARTIN | 1985 | 9420 | 72,795 | 1,062,980 |
| 72213500 | 8A | POLAR, EAST | PENNSYLVANIAN | TX | KENT | 1950 | 6855 | 0 | 1,993,424 |
| 72560500 | 8A | POST, WEST | STRAWN | TX | GARZA | 1979 | 8482 | 0 | 1,099,724 |
| 75780001 | 8A | REINECKE | | TX | BORDEN | 1950 | 6791 | 562,858 | 85,247,005 |
| 75781500 | 8A | REINECKE, E. | CANYON | TX | BORDEN | 1966 | 6794 | 2,329 | 1,281,886 |
| 79131666 | 8 | RUWE-COB | PENN REEF | TX | HOWARD | 1967 | 7424 | 12,681 | 1,207,162 |
| 79887001 | 8A | SALT CREEK | | TX | KENT | 1950 | 6200 | 5,792,610 | 356,369,037 |
| 79891500 | 8A | SALT CREEK, SOUTH | PENN., LOWER | TX | KENT | 1952 | 6622 | 0 | 1,403,717 |
| 81021250 | 8 | SARA-MAG | CANYON REEF | TX | HOWARD | 1954 | 7580 | 250,936 | 3,937,283 |
| 81987400 | 8A | SEAN ANDREW | PENN. | TX | DAWSON | 1994 | 8329 | 51,699 | 1,296,502 |
| 84470750 | 8A | SNYDER, N | STRAWN ZONE B | TX | SCURRY | 1950 | 7300 | 9,371 | 7,936,335 |
| 85292750 | 8A | SPRABERRY, WEST | PENN. | TX | DAWSON | 1953 | 8060 | 4,988 | 2,293,014 |
| 85743666 | 8A | STATEX | CISCO REEF | TX | TERRY | 1952 | 10032 | 12,433 | 2,870,697 |
| 87646500 | 8A | SWENSON-GARZA | STRAWN | TX | GARZA | 1971 | 7356 | 0 | 1,390,411 |
| 88611568 | 8A | TEAS | PENN. 8100 | TX | GARZA | 1958 | 8069 | 20,205 | 3,892,415 |
| 88760100 | 8A | TEN GALLON | CANYON LIME | TX | SCURRY | 1992 | 6760 | 57,981 | 1,173,235 |
| 88977142 | 8A | TEX-HAMON | CANYON | TX | DAWSON | 1962 | 10060 | 9,715 | 1,399,045 |
| 90268333 | 8A | TOBE | STRAWN | TX | GARZA | 1951 | 7451 | 22,077 | 1,733,188 |
| 90697500 | 8A | TONTO, NE. | CISCO 5030 | TX | SCURRY | 1966 | 5046 | 6,147 | 1,700,852 |
| 91318500 | 8A | TRIPLE D | PENN. REEF | TX | DAWSON | 1958 | 8497 | 1,913 | 1,088,474 |
| 91115500 | 8A | TRI-RUE | REEF | TX | SCURRY | 1956 | 6862 | 100,444 | 6,516,418 |
| 91670700 | 8A | TUFBOW | STRAWN | TX | GARZA | 1979 | 7599 | 21,027 | 1,300,773 |
| 92290666 | 8A | U-LAZY -S- | PENNSYLVANIAN | TX | BORDEN | 1958 | 8084 | 4,390 | 3,015,323 |
| 93308001 | 8 | VEALMOOR | | TX | HOWARD | 1948 | 7934 | 106,125 | 39,565,153 |
| 93310001 | 8 | VEALMOOR, EAST | | TX | HOWARD | 1950 | 7414 | 154,771 | 62,692,195 |
| 93854500 | 8 | VINCENT, N. | PENNSYLVANIAN REEF | TX | HOWARD | 1957 | 7444 | 28,497 | 2,558,261 |
| 93857500 | 8 | VINCENT, S. | STRAWN | TX | HOWARD | 1964 | 7839 | 17,244 | 1,195,546 |
| 93860500 | 8 | VINCENT, WEST | PENN. | TX | HOWARD | 1957 | 7454 | 23,579 | 1,116,613 |
| 94114001 | 8A | VON ROEDER | | TX | BORDEN | 1959 | 6835 | 63,015 | 19,299,794 |
| 94114666 | 8A | VON ROEDER | WOLFCAMP | TX | BORDEN | 1964 | 6063 | 9,091 | 1,020,734 |
| 94116001 | 8A | VON ROEDER, NORTH | | TX | BORDEN | 1954 | 6835 | 12,654 | 10,322,342 |
| 96180001 | 8A | WELLMAN | | TX | TERRY | 1950 | 9712 | 228,174 | 74,181,795 |
| | **Totals** | | | | | | | **13,686,639** | **2,699,242,936** |

Table 15. Upper Pennsylvanian and Lower Permian Slope and Basinal Sandstone play (Play 113). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 2718400 | 7C | ANDREW A. | CANYON | TX | IRION | 1979 | 7390 | 58,724 | 3,321,404 |
| 3602550 | 7C | ARLEDGE | PENN SAND | TX | COKE | 1974 | 5270 | 7,065 | 1,191,965 |
| 4170666 | 7B | ASPERMONT LAKE | CANYON SAND | TX | STONEWALL | 1951 | 4862 | 9,193 | 2,236,772 |
| 5143300 | 7C | BAKER RANCH | CANYON | TX | IRION | 1978 | 7019 | 24,266 | 2,298,589 |
| 9630400 | 7C | BLOODWORTH, NE. | 5750 CANYON | TX | NOLAN | 1967 | 8,124 | 8,124 | 3,710,179 |
| 12175852 | 7C | BRONTE | 4800 SAND | TX | COKE | 1952 | 4838 | 0 | 6,075,918 |
| 12244075 | 7C | BROOKS | CANYON K | TX | IRION | 1973 | 6494 | 19,495 | 1,072,548 |
| 17991500 | 7C | CHRISTI | CANYON 6800 | TX | IRION | 1971 | 6824 | 5,798 | 1,192,011 |
| 18799498 | 7B | CLAYTONVILLE | CANYON SD. 5200 | TX | FISHER | 1955 | 5197 | 3,458 | 2,094,750 |
| 19346284 | 8A | COGDELL | FULLER SAND | TX | KENT | 1950 | 4985 | 0 | 1,234,509 |
| 20097700 | 8 | CONGER | PENN | TX | GLASSCOCK | 1978 | 7739 | 222,782 | 20,406,213 |
| 20101500 | 7C | CONGER, SW | PENN | TX | REAGAN | 1979 | 8134 | 19,879 | 2,675,544 |
| 25930284 | 7C | DOVE CREEK | CANYON -C- | TX | TOM GREEN | 1965 | 6497 | 11,268 | 1,205,124 |
| 25930426 | 7C | DOVE CREEK | CANYON -D- | TX | IRION | 1965 | 6540 | 30,509 | 3,140,304 |
| 31628250 | 7B | FLOWERS | CANYON SAND | TX | STONEWALL | 1951 | 4024 | 99,721 | 31,076,719 |
| 31634500 | 7B | FLOWERS, W. | CANYON SAND | TX | STONEWALL | 1952 | 4270 | 9,629 | 5,653,948 |
| 32653400 | 7B | FRANKIRK | CANYON SAND | TX | STONEWALL | 1952 | 4587 | 18,389 | 1,526,680 |
| 32654332 | 7B | FRANKIRK, EAST | CANYON SD | TX | STONEWALL | 1960 | 4406 | 6,874 | 1,940,490 |
| 33190001 | 8A | FULLER | | TX | SCURRY | 1951 | 5147 | 18,667 | 7,431,645 |
| 33191500 | 8A | FULLER, EAST | FULLER -B- | TX | SCURRY | 1961 | 4935 | 15,763 | 1,251,629 |
| 33196332 | 8A | FULLER, SE. | FULLER | TX | SCURRY | 1957 | 5032 | 6,292 | 1,233,168 |
| 33196498 | 8A | FULLER, SE. | FULLER -C- | TX | SCURRY | 1961 | 5029 | 23,956 | 1,356,946 |
| 37328333 | 7B | GUEST | CANYON SAND | TX | STONEWALL | 1951 | 4557 | 47,833 | 10,548,187 |
| 44042125 | 7C | I. A. B. | HARRIS SAND | TX | COKE | 1970 | 5275 | 1,894 | 1,097,186 |
| 44042750 | 7C | I. A. B. | PENN 5070 | TX | COKE | 1957 | 5063 | 323 | 1,023,437 |
| 44045600 | 7C | I. A. B., NE. | PENN. 5150 | TX | COKE | 1961 | 5192 | 12,038 | 2,950,613 |
| 45580666 | 7C | JAMESON | STRAWN | TX | COKE | 1952 | 5800 | 113,419 | 42,408,749 |
| 45991666 | 8A | JAYTON, WEST | STRAWN SAND | TX | KENT | 1963 | 6466 | 8,681 | 1,938,821 |
| 47542250 | 7B | JUDY GAIL | CANYON SAND | TX | FISHER | 1953 | 4546 | 66,486 | 2,726,433 |
| 48422500 | 7B | KEELER-WIMBERLY | CANYON SD. | TX | FISHER | 1952 | 4528 | 9,894 | 1,116,777 |
| 48583498 | 8A | KELLY-SNYDER | CISCO SAND | TX | SCURRY | 1952 | 6180 | 12,056 | 15,359,584 |
| 51592500 | 7B | LAKE TRAMMEL, S. | CANYON | TX | NOLAN | 1951 | 5130 | 48,488 | 3,686,833 |
| 51595333 | 7B | LAKE TRAMMEL, W. | CANYON | TX | NOLAN | 1953 | 5217 | 67,116 | 12,832,787 |
| 56382200 | 8A | MABEN | CISCO | TX | KENT | 1989 | 5664 | 112,246 | 1,481,691 |
| 60496500 | 7B | MENGEL, E. | CANYON SAND | TX | STONEWALL | 1961 | 4276 | 107,241 | 2,081,076 |
| 60989200 | 8A | MICHELLE KAY | CISCO | TX | KENT | 1983 | 5835 | 86,782 | 2,252,054 |
| 65821666 | 7B | NOODLE, N. | CISCO, LOWER | TX | JONES | 1953 | 3669 | 9,738 | 2,102,487 |
| 65823400 | 7B | NOODLE, NW. | CANYON SD. 4000 | TX | JONES | 1955 | 3950 | 3,208 | 1,071,443 |
| 67999333 | 7C | OZONA, NW. | CANYON | TX | CROCKETT | 1963 | 6675 | 17,508 | 1,913,927 |
| 69098166 | 7B | PARDUE | CANYON | TX | FISHER | 1949 | 4415 | 10,899 | 3,231,747 |
| 71779001 | 7B | PITZER | | TX | JONES | 1946 | 4655 | 22,741 | 3,484,394 |
| 73243500 | 7C | PROBANDT | CANYON | TX | TOM GREEN | 1975 | 7169 | 8,505 | 1,468,833 |
| 74863200 | 7B | RAVEN CREEK | CANYON SAND | TX | FISHER | 1954 | 4228 | 2,079 | 1,602,581 |
| 76360500 | 7B | RICE BROS. | CANYON | TX | FISHER | 1975 | 4486 | 11,095 | 1,511,631 |
| 77622500 | 7C | ROCK PEN | CANYON | TX | IRION | 1976 | 7145 | 35,014 | 3,205,731 |
| 78567125 | 7B | ROUND TOP | CANYON | TX | FISHER | 1953 | 4568 | 6,197 | 2,862,869 |
| 78819500 | 7B | ROYSTON | CANYON | TX | FISHER | 1953 | 4460 | 3,751 | 1,358,151 |
| 83873250 | 7C | SIXTY SEVEN | CANYON | TX | IRION | 1966 | 6684 | 3,002 | 1,081,381 |
| 79303666 | 8A | S-M-S | CANYON SAND | TX | KENT | 1954 | 6100 | 17,465 | 11,405,716 |
| 87015881 | 7C | SUGG RANCH | CANYON | TX | STERLING | 1987 | 7860 | 166,487 | 7,615,629 |
| 87018550 | 8 | SUGG RANCH | CANYON DIST 08 | TX | STERLING | 1987 | 7860 | 89,130 | 6,483,258 |
| 87613500 | 7B | SWEETWATER | CANYON SAND | TX | FISHER | 1955 | 5230 | 3,757 | 4,807,189 |
| 87920500 | 7C | T. D. | 6575 | TX | TOM GREEN | 1982 | 6592 | 17,388 | 1,001,559 |
| 90383250 | 7B | TOLAR | CANYON | TX | FISHER | 1953 | 4502 | 5,203 | 1,524,888 |
| 90674375 | 7B | TOMPKINS | CANYON SD. 4900 | TX | STONEWALL | 1956 | 4824 | 0 | 1,452,542 |
| 90674875 | 7B | TOMPKINS | STRAWN SAND | TX | STONEWALL | 1955 | 5347 | 0 | 2,154,676 |
| 90694125 | 8A | TONTO | CANYON SAND | TX | SCURRY | 1955 | 6690 | 16,982 | 3,093,714 |
| 93410710 | 7C | VELREX | HENDERSON UPPER | TX | SCHLEICHER | 1964 | 6406 | 14,060 | 1,008,498 |
| 99658500 | 7C | ZAN-ZAN | MID. CANYON | TX | IRION | 1988 | 6014 | 23,815 | 1,174,262 |
| | | **Totals** | | | | | | **1,802,373** | **271,448,389** |

Table 16. Wolfcamp Platform Carbonate play (Play 114). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 1964666 | 8A | ALSABROOK | WOLFCAMP | TX | GAINES | 1953 | 9125 | 0 | 1,053,164 |
| 2725750 | 8 | ANDREWS | WOLFCAMP | TX | ANDREWS | 1953 | 8596 | 0 | 22,785,915 |
| 2725760 | 8 | ANDREWS | WOLFCAMP-PENN. | TX | ANDREWS | 1995 | 9380 | 666,442 | 3,692,443 |
| 2730852 | 8 | ANDREWS, SOUTH | WOLFCAMP | TX | ANDREWS | 1953 | 9183 | 63,186 | 15,169,599 |
| 5166888 | 8 | BAKKE | WOLFCAMP | TX | ANDREWS | 1956 | 8492 | 178,729 | 25,048,339 |
| 21292125 | 8 | COWDEN, SOUTH | CANYON 8790 | TX | ECTOR | 1966 | 9202 | 534,499 | 43,011,248 |
| 21292250 | 8 | COWDEN, SOUTH | CANYON 8900 | TX | ECTOR | 1968 | 8993 | 57,366 | 13,270,487 |
| 22576333 | 8A | D. E. B. | WOLFCAMP | TX | GAINES | 1960 | 9200 | 495,459 | 22,699,269 |
| 22576666 | 8A | D. E. B. | WOLFCAMP, ZONE B | TX | GAINES | 1960 | 9400 | 15,297 | 1,468,007 |
| 26538830 | 8 | DUNE | WOLFCAMP | TX | CRANE | 1957 | 7710 | 11,083 | 7,564,044 |
| 27779500 | 8 | EDWARDS -04-, S. | 7900 | TX | CRANE | 1967 | 7925 | 0 | 2,312,280 |
| 27746500 | 8 | EDWARDS, WEST | CANYON | TX | ECTOR | 1970 | 8962 | 65,268 | 23,979,851 |
| 30394750 | 8 | FASKEN | WOLFCAMP | TX | ANDREWS | 1952 | 8571 | 60,615 | 7,451,167 |
| 30394875 | 8 | FASKEN | WOLFCAMP, NORTH | TX | ANDREWS | 1956 | 8290 | 6,240 | 1,343,663 |
| 30398875 | 8 | FASKEN, SOUTH | WOLFCAMP | TX | ECTOR | 1960 | 8475 | 27,596 | 1,298,246 |
| 31768666 | 8 | FLYING -W- | WOLFCAMP | TX | WINKLER | 1955 | 8190 | 21,904 | 1,525,905 |
| 33235750 | 8 | FULLERTON, SOUTH | WOLFCAMP | TX | ANDREWS | 1955 | 8245 | 23,569 | 4,217,011 |
| 45726550 | 8A | JANICE | WOLFCAMP | TX | YOAKUM | 1981 | 8937 | 33,269 | 1,577,530 |
| 59419830 | 8 | MCFARLAND | WOLFCAMP | TX | ANDREWS | 1955 | 9134 | 72,720 | 8,558,308 |
| 60142750 | 8 | MEANS, SOUTH | WOLFCAMP | TX | ANDREWS | 1956 | 9378 | 85,212 | 7,257,075 |
| 61118830 | 8 | MIDLAND FARMS | WOLFCAMP | TX | ANDREWS | 1954 | 9539 | 77,430 | 15,397,011 |
| 65766888 | 8 | NOLLEY | WOLFCAMP | TX | ANDREWS | 1951 | 9227 | 213,962 | 30,459,183 |
| 69193710 | 8 | PARKER | WOLFCAMP | TX | ANDREWS | 1953 | 8554 | 338,613 | 5,501,626 |
| 80473868 | 8 | SAND HILLS | WOLFCAMP | TX | CRANE | 1958 | 5684 | 27,310 | 2,537,187 |
| 82225568 | 8A | SEMINOLE | WOLFCAMP LIME | TX | GAINES | 1963 | 9259 | 14,592 | 1,455,586 |
| 82225710 | 8A | SEMINOLE | WOLFCAMP REEF | TX | GAINES | 1962 | 9162 | 27,292 | 1,452,509 |
| 82570600 | 8 | SHAFTER LAKE | WOLFCAMP | TX | ANDREWS | 1951 | 8405 | 2,330 | 12,195,348 |
| 84819850 | 7C | SOUTHWEST MESA | WOLFCAMP | TX | CROCKETT | 1988 | 6268 | 24,833 | 1,463,139 |
| 88969800 | 8A | TEX-FLOR | WOLFCAMP | TX | GAINES | 1977 | 9152 | 11,066 | 1,810,349 |
| 90196666 | 7C | TIPPETT, W. | WOLFCAMP LO. | TX | CROCKETT | 1967 | 5564 | 0 | 1,365,836 |
| 90196333 | 7C | TIPPETT, WEST | HUECO | TX | CROCKETT | 1968 | 5012 | 5,579 | 1,469,047 |
| 88071928 | 8 | T X L | WOLFCAMP, NORTH | TX | ECTOR | 1959 | 7535 | 9,903 | 4,584,422 |
| 92534750 | 8 | UNIVERSITY BLOCK 9 | WOLFCAMP | TX | ANDREWS | 1953 | 8430 | 183,250 | 28,350,317 |
| 95397800 | 8A | WASSON | WOLFCAMP | TX | GAINES | 1956 | 8448 | 18,923 | 6,060,592 |
| 96291666 | 8 | WEMAC | WOLFCAMP | TX | ANDREWS | 1953 | 8708 | 4,009 | 4,239,021 |
| 96296500 | 8 | WEMAC, SOUTH | WOLFCAMP | TX | ANDREWS | 1962 | 8786 | 2,577 | 1,701,980 |
| 96756800 | 8 | WHEELER | WOLFCAMP | TX | ECTOR | 1959 | 7604 | 60,959 | 5,753,930 |
| | | ANDERSON RANCH | WOLFCAMP | NM | LEA | 1953 | 9760 | 19,061 | 4,235,028 |
| | | ANDERSON RANCH NORTH | WOLFCAMP | NM | LEA | 1960 | 9823 | 30,797 | 6,652,176 |
| | | BRONCO | WOLFCAMP | NM | LEA | 1953 | 9600 | 994 | 2,086,478 |
| | | CAUDILL | PERMO PENN | NM | LEA | 1956 | 10285 | 6,593 | 1,979,249 |
| | | DENTON | WOLFCAMP | NM | LEA | 1950 | 9240 | 242,272 | 41,755,373 |
| | | GLADIOLA | WOLFCAMP | NM | LEA | 1950 | 9578 | 14,524 | 4,144,627 |
| | | HENSHAW | WOLFCAMP | NM | EDDY | 1960 | 8822 | 11,483 | 3,401,748 |
| | | KEMNITZ | LOWER WOLFCAMP | NM | LEA | 1956 | 10742 | 18,731 | 16,608,371 |
| | | KEMNITZ WEST | WOLFCAMP | NM | LEA | 1963 | 10678 | 2,748 | 1,029,531 |
| | | KING | WOLFCAMP | NM | LEA | 1951 | 9300 | 21,755 | 1,369,908 |
| | | LANE | WOLFCAMP | NM | LEA | 1955 | 9700 | 0 | 1,028,000 |
| | | MORTON | WOLFCAMP | NM | LEA | 1964 | 10310 | 8,430 | 2,605,976 |
| | | MORTON EAST | WOLFCAMP | NM | LEA | 1970 | 10506 | 21,786 | 1,781,208 |
| | | TODD | WOLFCAMP | NM | ROOSEVELT | 1971 | 7580 | 31,769 | 1,115,408 |
| | | TOWNSEND | PERMO-UPPER PENN | NM | LEA | 1952 | 10400 | 124,759 | 24,101,823 |
| | | TULK | WOLFCAMP | NM | LEA | 1951 | 9700 | 15,862 | 2,429,801 |
| | | **Totals** | | | | | | **4,012,646** | **457,405,339** |

Table 17. Wolfcamp/Leonard Slope and Basinal Carbonate play (Play 115). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 2207912 | 7C | AMACKER-TIPPETT | WOLFCAMP | TX | UPTON | 1954 | 9090 | 161,453 | 5,567,355 |
| 2220900 | 7C | AMACKER-TIPPET, SW | 9100 | TX | UPTON | 1980 | 9344 | 583,285 | 5,264,842 |
| 2220700 | 7C | AMACKER-TIPPETT, SW | WOLFCAMP | TX | UPTON | 1977 | 9218 | 2,593,888 | 16,046,136 |
| 2220710 | 7C | AMACKER-TIPPETT, SW. | WOLFCAMP A | TX | UPTON | 1988 | 9069 | 201,693 | 4,442,155 |
| 4228664 | 8 | ATHEY | WOLFCAMP 10900 | TX | PECOS | 1967 | 11263 | 60,515 | 2,411,926 |
| 5229500 | 8A | BALE, EAST | WOLFCAMP | TX | GAINES | 1972 | 10005 | 2,665 | 1,636,763 |
| 8735500 | 8 | BLALOCK LAKE, E. | WOLFCAMP | TX | GLASSCOCK | 1971 | 7914 | 188,510 | 5,978,078 |
| 8739500 | 8 | BLALOCK LAKE, S. | WOLFCAMP | TX | GLASSCOCK | 1974 | 8246 | 389,662 | 10,256,922 |
| 8740500 | 8 | BLALOCK LAKE, SE | WOLFCAMP | TX | GLASSCOCK | 1981 | 8245 | 229,826 | 9,974,801 |
| 19235700 | 8 | COBRA | WOLFCAMP | TX | GLASSCOCK | 1984 | 7947 | 1,080,278 | 10,587,410 |
| 20844500 | 7C | CORVETTE | WOLFCAMP | TX | UPTON | 1991 | 9388 | 110,532 | 4,826,776 |
| 21382875 | 8 | COYANOSA | WOLFCAMP | TX | PECOS | 1970 | 11614 | 2,768 | 6,299,774 |
| 21597250 | 8 | CREDO | WOLFCAMP | TX | STERLING | 1962 | 7334 | 12,169 | 3,951,915 |
| 21597500 | 8 | CREDO | WOLFCAMP, LOWER -B- | TX | STERLING | 1962 | 7430 | 735 | 2,497,526 |
| 24488650 | 8 | DEWEY LAKE | WOLFCAMP | TX | GLASSCOCK | 1982 | 8449 | 6,970 | 1,395,910 |
| 24562710 | 8A | DIAMOND -M- | WOLFCAMP | TX | SCURRY | 1952 | 5310 | 0 | 2,596,809 |
| 34001750 | 8 | GARDEN CITY, W. | WOLFCAMP 7880 | TX | GLASSCOCK | 1966 | 7920 | 286,123 | 3,479,124 |
| 35708670 | 8 | GOMEZ | WOLFCAMP UPPER | TX | PECOS | 1977 | 10620 | 3,144 | 1,227,066 |
| 38866600 | 8A | HAPPY | SPRABERRY LIME | TX | GARZA | 1989 | 4970 | 976,132 | 7,336,714 |
| 42971664 | 8 | HOWARD-GLASSCOCK | WOLFCAMP 7400 | TX | HOWARD | 1970 | 7441 | 76,590 | 6,178,414 |
| 43926600 | 8 | HUTTO, SOUTH | WOLFCAMP | TX | HOWARD | 1964 | 7421 | 36,345 | 3,330,447 |
| 48338500 | 8A | KAY | WOLFCAMP REEF | TX | GAINES | 1959 | 10349 | 0 | 1,976,465 |
| 57324650 | 8 | MARALO | WOLFCAMP | TX | PECOS | 1984 | 11055 | 11,421 | 1,200,187 |
| 72810500 | 8 | POWELL | 8300 | TX | GLASSCOCK | 1982 | 8552 | 12,202 | 2,181,282 |
| 78279300 | 8 | ROSE CREEK, N | WOLFCAMP | TX | STERLING | 1982 | 5084 | 70,894 | 1,582,370 |
| 85279400 | 7C | SPRABERRY | TREND AREA CL. FK. | TX | REAGAN | 1955 | 6194 | 79,498 | 11,327,959 |
| 85280400 | 8 | SPRABERRY | TREND AREA CL. FK. | TX | MIDLAND | 1955 | 7000 | 21,289 | 3,375,768 |
| 85447300 | 7C | SRH | CLEAR FORK | TX | REAGAN | 1995 | 4837 | 129,667 | 1,266,029 |
| 90369666 | 8A | TOKIO, SOUTH | WOLFCAMP | TX | TERRY | 1953 | 9860 | 15,016 | 3,114,383 |
| 91336498 | 8 | TRIPLE M | WOLFCAMP UPPER | TX | STERLING | 1963 | 6746 | 6,623 | 3,109,333 |
| 91424475 | 7C | TRIUMPH | WOLFCAMP | TX | UPTON | 1992 | 8530 | 183,282 | 3,362,056 |
| 95129600 | 8 | WAR-WINK, S. | WOLFCAMP | TX | WARD | 1976 | 12758 | 270,499 | 12,741,227 |
| 95130900 | 8 | WAR-WINK, W. | WOLFCAMP | TX | WARD | 1976 | 11545 | 604,798 | 2,865,482 |
| | | BAISH | WOLFCAMP | NM | LEA | 1962 | 9800 | 28,315 | 1,068,654 |
| | | BURTON FLAT NORTH | WOLFCAMP | NM | EDDY | 1975 | 9160 | 0 | 3,226,531 |
| | | CORBIN SOUTH | WOLFCAMP | NM | LEA | 1967 | 11000 | 127,055 | 6,609,050 |
| | | JOHNSON RANCH | WOLFCAMP | NM | LEA | 1985 | 13500 | 291,937 | 1,380,757 |
| | | SCHARB | WOLFCAMP | NM | LEA | 1980 | 10519 | 16,981 | 1,199,917 |
| | | SHOE BAR NORTH | WOLFCAMP | NM | LEA | 1973 | 10456 | 15,877 | 1,706,095 |
| | | VACUUM | WOLFCAMP | NM | LEA | 1963 | 9950 | 78,821 | 6,660,250 |
| | | VACUUM NORTH | LOWER WOLFCAMP | NM | LEA | 1967 | 10690 | 1,093 | 1,952,599 |
| | | WANTZ | GRANITE WASH | NM | LEA | 1963 | 7270 | 77,637 | 7,782,243 |
| | **Totals** | | | | | | | **9,046,188** | **194,975,500** |

Table 18. Abo Platform Carbonate play (Play 116). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 8234002 | 8A | BILLY | ABO | TX | LAMB | 1995 | 6674 | 119,876 | 1,168,302 |
| 12376666 | 8A | BROWN | WICHITA - ALBANY | TX | GAINES | 1960 | 8004 | 20,255 | 4,550,006 |
| 49460500 | 8A | KINGDOM | ABO REEF | TX | TERRY | 1970 | 8120 | 1,262,687 | 57,666,707 |
| 53411070 | 8A | LEVELLAND | ABO | TX | HOCKLEY | 1976 | 7566 | 21,576 | 1,521,730 |
| 53411852 | 8A | LEVELLAND | WICHITA-ALBANY | TX | HOCKLEY | 1965 | 7488 | 19,083 | 1,039,496 |
| 87157200 | 8A | SUNDOWN | ABO | TX | HOCKLEY | 1978 | 7926 | 29,741 | 1,056,569 |
| 91621001 | 8A | TSTAR | ABO | TX | HOCKLEY | 1996 | 8039 | 837,713 | 3,223,835 |
| 95397600 | 8A | WASSON | WICHITA ALBANY | TX | GAINES | 1960 | 11038 | 99,477 | 11,639,560 |
| 95402333 | 8A | WASSON, S. | WICHITA - ALBANY | TX | GAINES | 1962 | 7711 | 19,268 | 4,652,147 |
| | | BRUNSON SOUTH | ABO DRINKARD | NM | LEA | 1988 | 6750 | 102,791 | 10,117,489 |
| | | BUCKEYE | ABO | NM | LEA | 1965 | 8950 | 19,140 | 2,529,960 |
| | | CORBIN | ABO | NM | LEA | 1959 | 8410 | 72,551 | 15,684,050 |
| | | DOUBLE A | LOWER ABO | NM | LEA | 1964 | 9300 | 12,498 | 1,076,771 |
| | | DOUBLE A SOUTH | ABO | NM | LEA | 1964 | 8900 | 24,923 | 1,970,186 |
| | | EMPIRE | ABO | NM | EDDY | 1957 | 6014 | 45,511 | 225,140,765 |
| | | JACKSON | ABO | NM | EDDY | 1961 | 6910 | 1,646 | 1,053,208 |
| | | LOVINGTON | ABO | NM | LEA | 1951 | 8340 | 80,989 | 33,983,198 |
| | | MALJAMAR | ABO | NM | LEA | 1959 | 8977 | 3,834 | 1,029,476 |
| | | MONUMENT | ABO | NM | LEA | 1948 | 7180 | 1,291,446 | 7,139,437 |
| | | MONUMENT NORTH | ABO | NM | LEA | 1977 | 7300 | 220,836 | 1,204,844 |
| | | VACUUM | ABO REEF | NM | LEA | 1960 | 8650 | 366,857 | 91,163,873 |
| | | VACUUM NORTH | ABO | NM | LEA | 1963 | 8500 | 1,298,837 | 52,981,986 |
| | | WANTZ | ABO | NM | LEA | 1950 | 6560 | 134,048 | 9,866,088 |
| | **Totals** | | | | | | | **6,105,583** | **541,459,683** |

Table 19. Leonard Restricted Platform Carbonate play (Play 117). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD | SUBPLAY |
|---|---|---|---|---|---|---|---|---|---|---|
| 292058 | 8 | ABELL | CLEAR FORK | TX | PECOS | 1950 | 3555 | 11,400 | 1,043,523 | |
| 292580 | 8 | ABELL | PERMIAN 3800 | TX | PECOS | 1949 | 3800 | 5,495 | 1,000,919 | |
| 292500 | 8 | ABELL | PERMIAN-GENERAL | TX | CRANE | 1975 | 4200 | 49,449 | 1,658,580 | |
| 1406001 | 8A | ALEX | | TX | TERRY | 1945 | 5150 | 54,445 | 1,623,604 | |
| 3172500 | 8A | ANTON | CLEAR FORK, LOWER | TX | HOCKLEY | 1959 | 6502 | 24,778 | 1,045,786 | |
| 3180001 | 8A | ANTON, WEST | | TX | HOCKLEY | 1950 | 6655 | 46,493 | 2,517,174 | |
| 3194001 | 8A | ANTON-IRISH | | TX | HALE | 1944 | 5348 | 3,466,252 | 200,803,233 | |
| 3644568 | 8 | ARMER | TUBB | TX | CRANE | 1955 | 4865 | 15,168 | 1,441,098 | |
| 4279500 | 7C | ATKINSON, W. | SAN ANGELO | TX | TOM GREEN | 1965 | 816 | 55,327 | 2,311,838 | |
| 5524830 | 8 | BAR-MAR | TUBB | TX | CRANE | 1965 | 3962 | 13,153 | 1,022,337 | |
| 6378284 | 8 | BAYVIEW | GLORIETA | TX | CRANE | 1961 | 3008 | 3,671 | 2,595,807 | |
| 6385500 | 8 | BAYVIEW, W. | GLORIETA | TX | CRANE | 1965 | 3023 | 5,725 | 1,026,923 | |
| 9250001 | 8 | BLOCK 12 | | TX | ANDREWS | 1946 | 7170 | 24,318 | 3,003,421 | |
| 8944750 | 8 | BLOCK A-28 | WICHITA-ALBANY | TX | ANDREWS | 1964 | 7463 | 21,924 | 1,690,793 | |
| 8958400 | 8 | BLOCK A-34 | GLORIETA | TX | ANDREWS | 1955 | 5910 | 136,778 | 3,112,350 | |
| 8962500 | 8 | BLOCK A-34, NORTHWEST | GLORIETA | TX | ANDREWS | 1955 | 5914 | 16,864 | 1,402,909 | |
| 11082333 | 8 | BOYDELL, S. | CLEAR FORK, LO. | TX | ANDREWS | 1967 | 7089 | 132,105 | 2,325,116 | |
| 12118500 | 8A | BROADVIEW, WEST | CLEAR FORK | TX | LUBBOCK | 1960 | 5565 | 155,447 | 3,389,002 | |
| 12230333 | 8 | BROOKLAW | CLEAR FORK, LOWER | TX | PECOS | 1969 | 3460 | 16,172 | 2,195,374 | |
| 12376001 | 8A | BROWN | | TX | GAINES | 1948 | 6030 | 12,203 | 5,380,103 | |
| 12448200 | 8 | BROWN & THORP | CLEAR FORK | TX | PECOS | 1951 | 3028 | 24,560 | 6,882,219 | |
| 12449800 | 8 | BROWN & THORP, EAST | TUBB | TX | PECOS | 1965 | 3125 | 84,867 | 2,681,183 | |
| 14200800 | 8 | C-BAR | TUBB | TX | CRANE | 1957 | 5320 | 19,076 | 2,622,880 | |
| 19541001 | 8 | COLEMAN RANCH | | TX | MITCHELL | 1946 | 2560 | 231,378 | 10,496,867 | |
| 19543500 | 8 | COLEMAN RANCH, N. | CLEAR FORK | TX | MITCHELL | 1953 | 3050 | 68,512 | 4,051,150 | |
| 20609666 | 8 | CORDONA LAKE, NORTH | TUBB 4500 | TX | CRANE | 1966 | 4546 | 1,927 | 1,061,583 | |
| 21577450 | 8 | CRAWAR | GLORIETA | TX | WARD | 1954 | 4040 | 51,440 | 1,285,530 | |
| 21907555 | 8 | CROSSETT | 3000 CLEAR FORK | TX | CRANE | 1952 | 2960 | 38,765 | 3,022,275 | |
| 23907568 | 8 | DEEP ROCK | GLORIETA 5950 | TX | ANDREWS | 1954 | 5700 | 307,694 | 13,186,510 | |
| 24562284 | 8A | DIAMOND -M- | CLEAR FORK | TX | SCURRY | 1940 | 3170 | 341,882 | 9,832,055 | |
| 25188200 | 8 | DOLLARHIDE | CLEAR FORK | TX | ANDREWS | 1949 | 6545 | 755,549 | 47,270,501 | |
| 25544001 | 8A | DORWARD | | TX | GARZA | 1950 | 2456 | 269,535 | 26,776,688 | |
| 27664500 | 8A | EDMISSON | CLEAR FORK | TX | LUBBOCK | 1957 | 5143 | 436,211 | 14,122,508 | |
| 27668500 | 8A | EDMISSON, N.W. | CLEAR FORK | TX | LUBBOCK | 1979 | 5446 | 224,312 | 2,958,886 | |
| 28843888 | 8 | EMBAR | 5600 | TX | ANDREWS | 1955 | 5606 | 23,398 | 6,368,089 | |
| 28843666 | 8 | EMBAR | PERMIAN | TX | ANDREWS | 1942 | 6280 | 30,050 | 6,779,777 | |
| 28961568 | 8 | EMPEROR | HOLT | TX | WINKLER | 1946 | 4765 | 117,711 | 9,475,152 | |
| 28963500 | 8 | EMPEROR, EAST | CLEAR FORK, LO. | TX | WINKLER | 1962 | 6097 | 11,227 | 1,131,119 | |
| 31222300 | 8A | FLANAGAN | CLEARFORK, CONS. | TX | GAINES | 1949 | 7142 | 848,550 | 34,993,943 | |
| 31893333 | 8A | FORBES | GLORIETA | TX | CROSBY | 1955 | 3605 | 434,735 | 8,897,397 | |
| 33158250 | 8 | FUHRMAN | GLORIETA | TX | ANDREWS | 1950 | 5612 | 189,906 | 11,248,689 | |
| 33230001 | 8 | FULLERTON | | TX | ANDREWS | 1941 | 7300 | 3,170,615 | 309,506,748 | |
| 34113125 | 8A | GARZA | GLORIETA | TX | GARZA | 1956 | 3758 | 3,514 | 1,449,452 | |
| 34113160 | 8A | GARZA | GLORIETA, S. DEEP | TX | GARZA | 1985 | 3692 | 33,230 | 4,388,968 | |
| 34742450 | 8A | GIEBEL | CFA | TX | GAINES | 1998 | 7670 | 51,489 | 1,507,141 | |
| 35652868 | 8 | GOLDSMITH | 5600 | TX | ECTOR | 1947 | 5600 | 1,147,401 | 240,096,410 | |
| 35652062 | 8 | GOLDSMITH | CLEAR FORK | TX | ECTOR | 1946 | 6300 | 1,906,142 | 93,193,807 | |
| 35653333 | 8 | GOLDSMITH, EAST | GLORIETA | TX | ECTOR | 1955 | 5136 | 6,782 | 1,360,016 | |
| 35659125 | 8 | GOLDSMITH, W. | CLEAR FORK, UP. | TX | ECTOR | 1956 | 5640 | 42,287 | 9,675,776 | |
| 37695500 | 8A | H & L | GLORIETA | TX | GARZA | 1967 | 3397 | 25,087 | 2,838,452 | |
| 38255116 | 8 | HALLEY | CLEAR FORK | TX | WINKLER | 1961 | 5162 | 36,697 | 2,881,280 | |
| 38255406 | 8 | HALLEY | GLORIETA | TX | WINKLER | 1957 | 5006 | 27,169 | 4,333,697 | |
| 38455500 | 8A | HAMILTON | CLEARFORK | TX | HOCKLEY | 1980 | 6459 | 56,904 | 1,207,473 | |
| 39176690 | 8 | HARPER | GLORIETA | TX | ECTOR | 1988 | 5500 | 52,206 | 1,118,476 | |
| 39242001 | 8A | HARRIS | | TX | GAINES | 1949 | 5965 | 1,039,986 | 77,544,178 | |
| 41769001 | 8A | HOBBS, EAST | | TX | GAINES | 1949 | 6390 | 18,953 | 1,623,627 | |
| 42499500 | 8A | HOOPLE | CLEAR FORK | TX | LUBBOCK | 1976 | 4432 | 429,394 | 14,531,548 | |
| 42971166 | 8 | HOWARD GLASSCOCK | CLEAR FORK,MI | TX | HOWARD | 1970 | 3705 | 155,631 | 6,808,390 | |
| 42971332 | 8 | HOWARD-GLASSCOCK | GLORIETA | TX | HOWARD | 1925 | 3200 | 603,262 | 39,431,415 | |
| 43731333 | 8A | HUNTLEY | GLORIETA | TX | GARZA | 1954 | 3966 | 31,002 | 7,649,424 | |
| 44148500 | 8 | IATAN, EAST HOWARD | | TX | HOWARD | 1926 | 2700 | 1,837,814 | 168,656,507 | |
| 44245500 | 8A | IDALOU, NORTH | CLEARFORK, LO | TX | LUBBOCK | 1979 | 5650 | 80,698 | 2,252,994 | |
| 45680500 | 8 | JANELLE, SE. | TUBB | TX | WARD | 1962 | 5344 | 74,002 | 4,843,708 | |
| 46134500 | 8A | JENKINS, NORTH | CLEAR FORK | TX | GAINES | 1954 | 7148 | 147,180 | 2,690,500 | |
| 47007380 | 8 | JOHNSON | GLORIETA | TX | ECTOR | 1973 | 5452 | 77,950 | 8,122,905 | |
| 47267608 | 8 | JORDAN | TUBB | TX | ECTOR | 1948 | 5250 | 6,226 | 3,416,506 | |
| 48583664 | 8A | KELLY SNYDER | CLEAR FORK, LOWER | TX | SCURRY | 1956 | 3320 | 4,561 | 1,227,148 | |
| 49043333 | 8 | KERMIT, SE. | TUBB | TX | WINKLER | 1965 | 6211 | 12,037 | 1,012,432 | |
| 49099500 | 7C | KETCHUM MT. | CLEAR FORK | TX | IRION | 1955 | 4548 | 295,594 | 9,226,117 | |
| 49129066 | 8 | KEYSTONE | CLEAR FORK | TX | WINKLER | 1958 | 5739 | 53,239 | 5,291,790 | |
| 49129396 | 8 | KEYSTONE | HOLT | TX | WINKLER | 1943 | 4800 | 515,675 | 44,955,406 | |
| 49133001 | 8 | KEYSTONE, SOUTH | | TX | WINKLER | 1958 | 6470 | 30,539 | 3,276,871 | |
| 52624900 | 8 | LEA | TUBB | TX | CRANE | 1955 | 4448 | 19,898 | 1,842,206 | |
| 52872001 | 8A | LEE HARRISON | | TX | LUBBOCK | 1941 | 4870 | 268,977 | 15,622,248 | |
| 52916500 | 8A | LEEPER | GLORIETA | TX | TERRY | 1958 | 5896 | 447,007 | 14,672,329 | |
| 53759333 | 8A | LINKER | CLEAR FORK | TX | HOCKLEY | 1961 | 7162 | 112,546 | 1,953,860 | |
| 55953250 | 8 | LYLES | CLEAR FORK | TX | CRANE | 1970 | 3170 | 18,836 | 2,423,992 | |

Table 19, continued. Leonard Restricted Platform Carbonate play (Play 117).

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD | SUBPLAY |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ATOKA | GLORIETA YESO | NM | EDDY | 1983 | 2660 | 124,457 | 4,031,176 | UPPER YESO |
| | | BLINEBRY O & G | BLINEBRY | NM | LEA | 1945 | 5600 | 727,220 | 41,171,199 | BLINEBRY |
| | | DOLLARHIDE | TUBB DRINKARD | NM | LEA | 1951 | 6616 | 441,314 | 24,207,673 | DRINKARD |
| | | DRINKARD | DRINKARD | NM | LEA | 1944 | 6500 | 330,675 | 74,707,203 | DRINKARD |
| | | EUNICE NORTH O & G | BLINEBRY TUBB DRINKARD | NM | LEA | 1987 | 5700 | 741,238 | 24,720,888 | BLINEBRY |
| | | FOWLER | UPPER YESO | NM | LEA | 1950 | 5705 | 33,803 | 4,923,367 | UPPER YESO |
| | | HOBBS | DRINKARD | NM | LEA | 1952 | 6880 | 23,413 | 3,091,100 | DRINKARD |
| | | HOBBS | UPPER BLINEBRY | NM | LEA | 1968 | 5870 | 56,680 | 6,402,273 | BLINEBRY |
| | | HOUSE | DRINKARD | NM | LEA | 1949 | 6980 | 23,377 | 1,678,305 | DRINKARD |
| | | JUSTIS | BLINEBRY | NM | LEA | 1958 | 5000 | 100,203 | 9,680,025 | BLINEBRY |
| | | JUSTIS | BLINEBRY TUBB DRINKARD | NM | LEA | 1992 | 5720 | 320,279 | 30,206,714 | TUBB |
| | | JUSTIS | TUBB DRINKARD | NM | LEA | 1959 | 5837 | 90,980 | 3,869,009 | DRINKARD |
| | | KNOWLES WEST | DRINKARD | NM | LEA | 1975 | 8236 | 17,108 | 2,185,907 | DRINKARD |
| | | LOVINGTON | PADDOCK | NM | LEA | 1952 | 6150 | 158,011 | 17,571,938 | UPPER YESO |
| | | MALJAMAR | PADDOCK | NM | EDDY | 1951 | 5300 | 31,848 | 1,299,622 | UPPER YESO |
| | | MONUMENT | BLINEBRY | NM | LEA | 1948 | 5660 | 65,875 | 10,134,918 | BLINEBRY |
| | | MONUMENT | PADDOCK | NM | LEA | 1948 | 5190 | 121,460 | 10,547,574 | UPPER YESO |
| | | MONUMENT | TUBB | NM | LEA | 1959 | 6400 | 153,027 | 5,109,750 | TUBB |
| | | NADINE WEST | PADDOCK BLINEBRY | NM | LEA | 1980 | 6008 | 160,227 | 3,477,154 | BLINEBRY |
| | | OIL CENTER | BLINEBRY | NM | LEA | 1962 | 5907 | 47,294 | 8,244,514 | BLINEBRY |
| | | PADDOCK | PADDOCK | NM | LEA | 1945 | 5170 | 217,867 | 30,191,406 | UPPER YESO |
| | | PADDOCK SOUTH | PADDOCK | NM | LEA | 1957 | 5100 | 8,397 | 2,816,108 | UPPER YESO |
| | | PENASCO DRAW | SAN ANDRES YESO | NM | EDDY | 1982 | 2250 | 22,130 | 2,284,403 | UPPER YESO |
| | | SKAGGS | DRINKARD | NM | LEA | 1953 | 6850 | 44,835 | 2,986,271 | DRINKARD |
| | | SKAGGS | GLORIETA | NM | LEA | 1958 | 5250 | 10,421 | 1,895,880 | UPPER YESO |
| | | TEAGUE | BLINEBRY | NM | LEA | 1967 | 5400 | 371,846 | 6,373,727 | BLINEBRY |
| | | TUBB OIL & GAS | TUBB | NM | LEA | 1979 | 6000 | 54,651 | 7,131,218 | TUBB |
| | | VACUUM | BLINEBRY | NM | LEA | 1963 | 6600 | 31,646 | 2,323,848 | BLINEBRY |
| | | VACUUM | DRINKARD | NM | LEA | 1962 | 7600 | 255,689 | 4,363,153 | DRINKARD |
| | | VACUUM | GLORIETA | NM | LEA | 1963 | 6100 | 1,130,709 | 73,520,926 | UPPER YESO |
| | | WARREN | TUBB | NM | LEA | 1958 | 6500 | 15,848 | 1,525,346 | TUBB |
| | | WARREN OIL & GAS | BLINEBRY TUBB | NM | LEA | 1957 | 5900 | 207,046 | 5,407,698 | BLINEBRY |
| | | WEIR | BLINEBRY | NM | LEA | 1961 | 5700 | 34,399 | 1,786,126 | BLINEBRY |
| | | WEIR EAST | BLINEBRY | NM | LEA | 1962 | 5800 | 19,540 | 1,010,761 | BLINEBRY |
| | | **Totals** | | | | | | **49,928,957** | **3,297,197,998** | |

Table 20. Bone Spring Basinal Sandstone and Carbonate play (Play 118).

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| | | AIRSTRIP | BONE SPRING | NM | LEA | 1979 | 9329 | 13,176 | 2,427,057 |
| | | AIRSTRIP NORTH | BONE SPRING | NM | LEA | 1986 | 9600 | 15,057 | 1,322,012 |
| | | EK | BONE SPRING | NM | LEA | 1975 | 9450 | 37,524 | 1,883,915 |
| | | LEA | BONE SPRING | NM | LEA | 1960 | 9480 | 25,700 | 3,341,316 |
| | | MESCALERO ESCARPE | BONE SPRING | NM | LEA | 1984 | 8660 | 218,935 | 8,416,490 |
| | | MIDWAY | ABO | NM | LEA | 1963 | 8850 | 8,689 | 2,877,582 |
| | | OLD MILLMAN RANCH | BONE SPRING | NM | EDDY | 1991 | 6140 | 61,396 | 1,211,918 |
| | | QUAIL RIDGE | BONE SPRING | NM | LEA | 1962 | 9315 | 8,501 | 1,718,885 |
| | | QUERECHO PLAINS | UPPER BONE SPRING | NM | LEA | 1959 | 8538 | 76,542 | 2,370,677 |
| | | RED HILLS | BONE SPRING | NM | LEA | 1992 | 12200 | 526,931 | 5,631,750 |
| | | RED TANK | BONE SPRING | NM | LEA | 1992 | 8820 | 73,218 | 1,068,622 |
| | | SCHARB | BONE SPRING | NM | LEA | 1963 | 10152 | 46,958 | 14,101,640 |
| | | SHUGART NORTH | BONE SPRING | NM | EDDY | 1986 | 7680 | 1,005,857 | 8,808,302 |
| | | TAMANO | BONE SPRING | NM | EDDY | 1985 | 8100 | 28,307 | 2,733,675 |
| | | TEAS | BONE SPRING | NM | LEA | 1963 | 9300 | 56,336 | 1,150,363 |
| | | YOUNG NORTH | BONE SPRING | NM | LEA | 1980 | 8416 | 252,027 | 11,639,256 |
| | | **Totals** | | | | | | **2,455,154** | **70,703,460** |

Play 21. Spraberry/Dean Submarine-Fan Sandstone play (Play 119). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 448200 | 8A | ACKERLY | DEAN SAND | TX | DAWSON | 1954 | 8172 | 786,965 | 49,582,865 |
| 450900 | 8A | ACKERLY, NORTH | SPRABERRY | TX | DAWSON | 1977 | 7739 | 149,571 | 2,936,419 |
| 702750 | 8A | ADCOCK | SPRABERRY | TX | DAWSON | 1972 | 7556 | 23,587 | 1,268,187 |
| 7109875 | 7C | BENEDUM | SPRABERRY | TX | UPTON | 1947 | 7593 | 65,313 | 24,699,962 |
| 11751200 | 8 | BREEDLOVE | SPRABERRY | TX | MARTIN | 1962 | 8350 | 50,272 | 2,400,927 |
| 11752666 | 8 | BREEDLOVE, EAST | SPRABERRY | TX | MARTIN | 1962 | 8180 | 37,477 | 2,347,842 |
| 11756500 | 8 | BREEDLOVE, SOUTH | SPRABERRY | TX | MARTIN | 1962 | 8084 | 60,512 | 3,979,507 |
| 12060500 | 8A | BRITT | SPRABERRY | TX | DAWSON | 1957 | 7396 | 10,986 | 1,095,217 |
| 14627333 | 8A | CAIN | SPRABERRY | TX | GARZA | 1959 | 4916 | 2,511 | 1,370,936 |
| 18790700 | 8A | CLAYTON RANCH, N. | SPRABERRY | TX | BORDEN | 1985 | 5738 | 312,709 | 2,273,366 |
| 20482001 | 7C | COPE | | TX | STERLING | 1951 | 6031 | 51,018 | 12,672,984 |
| 21090500 | 8A | COULTER | SPRABERRY | TX | GARZA | 1979 | 5296 | 50,131 | 1,184,144 |
| 27451500 | 8A | ECHOLS | SPRABERRY | TX | DAWSON | 1984 | 8277 | 21,438 | 1,375,136 |
| 30559166 | 8A | FELKEN | SPRABERRY | TX | DAWSON | 1955 | 7490 | 143,770 | 5,863,624 |
| 31236666 | 7C | FLAT ROCK | SPRABERRY | TX | UPTON | 1951 | 7245 | 1,338 | 1,781,814 |
| 34961750 | 8A | GIN | SPRABERRY | TX | DAWSON | 1965 | 8068 | 403,213 | 6,412,068 |
| 34970500 | 8A | GIN, NORTH | 8000 | TX | DAWSON | 1975 | 8029 | 106,246 | 3,602,421 |
| 43878600 | 8 | HUTEX | DEAN | TX | ANDREWS | 1959 | 9595 | 6,935 | 2,273,165 |
| 46564750 | 8A | JO-MILL | SPRABERRY | TX | BORDEN | 1954 | 7105 | 2,534,834 | 108,593,322 |
| 49113750 | 8A | KEY | SPRABERRY, UPPER | TX | DAWSON | 1963 | 6978 | 2,474 | 1,040,170 |
| 49125500 | 8A | KEY WEST | SPRABERRY | TX | DAWSON | 1982 | 7680 | 24,178 | 1,404,146 |
| 51152500 | 8 | LACAFF | DEAN | TX | MARTIN | 1969 | 9490 | 48,406 | 8,111,254 |
| 51742666 | 8A | LAMESA, WEST | SPRABERRY | TX | DAWSON | 1960 | 7999 | 176,360 | 2,640,850 |
| 56082500 | 8 | M.A.K. | SPRABERRY | TX | MARTIN | 1963 | 8501 | 29,274 | 1,995,628 |
| 69233664 | 8 | PARKS | SPRABERRY | TX | MIDLAND | 1957 | 7770 | 249,123 | 7,815,355 |
| 69570500 | 8A | PATRICIA, WEST | SPRABERRY | TX | DAWSON | 1962 | 8370 | 15,017 | 1,228,314 |
| 70279750 | 7C | PEGASUS | SPRABERRY | TX | UPTON | 1952 | 8255 | 235,746 | 16,174,394 |
| 71260500 | 8A | PHIL WRIGHT | SPRABERRY | TX | DAWSON | 1982 | 7832 | 127,586 | 3,699,781 |
| 76043500 | 8A | REO | JO MILL, LOWER | TX | BORDEN | 1980 | 7350 | 175,859 | 3,638,537 |
| 84258500 | 8A | SMITH | SPRABERRY | TX | DAWSON | 1950 | 7940 | 15,446 | 1,541,626 |
| 85279200 | 7C | SPRABERRY | TREND AREA | TX | GLASSCOCK | 1952 | 6785 | 5,564,574 | 433,832,105 |
| 85280300 | 8 | SPRABERRY | TREND AREA | TX | MIDLAND | 1952 | 8000 | 14,978,687 | 489,365,061 |
| 85280500 | 8 | SPRABERRY | TREND AREA DEAN-WLFCP | TX | GLASSCOCK | 1966 | 9022 | 0 | 10,704,270 |
| 85282001 | 8A | SPRABERRY, DEEP | | TX | DAWSON | 1949 | 6420 | 82,106 | 11,213,033 |
| 85282500 | 8A | SPRABERRY, DEEP | SPRABERRY, LO. | TX | DAWSON | 1957 | 7592 | 357,449 | 13,701,528 |
| 85292450 | 8A | SPRABERRY, W. | DEEP, SPRABERRY | TX | DAWSON | 1988 | 7018 | 248,525 | 13,023,206 |
| 87073333 | 8 | SULPHUR DRAW | DEAN 8790 | TX | MARTIN | 1966 | 9442 | 132,277 | 13,147,477 |
| 88977284 | 8A | TEX-HAMON | DEAN | TX | DAWSON | 1967 | 9555 | 68,015 | 6,356,866 |
| 89201500 | 7C | TEXON, W. | SPRABERRY | TX | REAGAN | 1964 | 6923 | 0 | 2,924,301 |
| 96068666 | 8A | WELCH, SE. | SPRABERRY | TX | DAWSON | 1952 | 7690 | 226,355 | 7,826,429 |
| | | **Totals** | | | | | | **27,576,283** | **1,287,098,237** |

Table 22. Northwest Shelf San Andres Platform Carbonate play (Play 120). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 10406500 | 8A | BONANZA | SAN ANDRES | TX | COCHRAN | 1980 | 4893 | 28,022 | 2,070,837 |
| 11308001 | 8A | BRAHANEY | | TX | YOAKUM | 1945 | 5301 | 1,018,218 | 54,223,283 |
| 12961500 | 8A | BUCKSHOT | 4950 | TX | COCHRAN | 1956 | 5010 | 61,081 | 11,816,602 |
| 22660500 | 8A | D-L-S | SAN ANDRES | TX | HOCKLEY | 1971 | 5161 | 99,377 | 13,371,869 |
| 34438500 | 8A | GEORGE ALLEN | SAN ANDRES | TX | GAINES | 1956 | 4934 | 12,271 | 1,255,323 |
| 39717500 | 8A | HAVEMEYER | SAN ANDRES | TX | GAINES | 1977 | 5488 | 48,744 | 1,175,130 |
| 44313666 | 8A | ILLUSION LAKE | SAN ANDRES | TX | LAMB | 1957 | 4116 | 2,023 | 2,274,312 |
| 51812001 | 8A | LANDON | | TX | YOAKUM | 1945 | 5100 | 46,344 | 7,100,093 |
| 53411001 | 8A | LEVELLAND | | TX | COCHRAN | 1945 | 4927 | 10,354,230 | 642,609,421 |
| 54098500 | 8A | LITTLEFIELD | SAN ANDRES | TX | LAMB | 1953 | 4030 | 1,650 | 4,806,609 |
| 66373750 | 8A | O D C | SAN ANDRES | TX | GAINES | 1956 | 5450 | 74,384 | 4,775,959 |
| 67905500 | 8A | OWNBY, WEST | SAN ANDRES | TX | YOAKUM | 1953 | 5307 | 86,331 | 1,518,031 |
| 72995470 | 8A | PRENTICE | 5100 | TX | YOAKUM | 1974 | 5240 | 23,390 | 1,877,441 |
| 72999500 | 8A | PRENTICE, NW. | SAN ANDRES | TX | YOAKUM | 1969 | 5164 | 54,585 | 3,740,591 |
| 75552500 | 8A | REEVES | SAN ANDRES | TX | YOAKUM | 1957 | 5544 | 700,856 | 33,359,158 |
| 79007500 | 8A | RUSSELL, S. | SAN ANDRES | TX | GAINES | 1964 | 4859 | 51,318 | 2,395,124 |
| 79393750 | 8A | SABLE | SAN ANDRES | TX | YOAKUM | 1957 | 5258 | 144,755 | 10,835,456 |
| 83991001 | 8A | SLAUGHTER | | TX | COCHRAN | 1937 | 5000 | 13,968,403 | 1,207,424,888 |
| 95397001 | 8A | WASSON | | TX | YOAKUM | 1937 | 4900 | 22,893,551 | 1,840,501,580 |
| 94215500 | 8A | WBD | SAN ANDRES | TX | YOAKUM | 1969 | 5288 | 9,718 | 1,056,403 |
| 96187333 | 8A | WELLMAN, SW. | SAN ANDRES | TX | TERRY | 1966 | 5509 | 41,568 | 2,982,644 |
| 96188333 | 8A | WELLMAN, W. | SAN ANDRES | TX | TERRY | 1966 | 5583 | 110,422 | 2,607,101 |
| 96487001 | 8A | WEST | | TX | YOAKUM | 1938 | 5100 | 22,410 | 2,668,047 |
| 99343001 | 8A | YELLOWHOUSE | | TX | HOCKLEY | 1944 | 4463 | 199,052 | 15,574,053 |
| 99347500 | 8A | YELLOWHOUSE, S. | SAN ANDRES | TX | HOCKLEY | 1957 | 4705 | 95,037 | 2,457,147 |
| | | BLUITT | SAN ANDRES | NM | ROOSEVELT | 1963 | 4500 | 2,385 | 2,498,864 |
| | | CATO | SAN ANDRES | NM | CHAVES | 1966 | 3414 | 11,912 | 16,254,326 |
| | | CHAVEROO | SAN ANDRES | NM | CHAVES & RO( | 1965 | 4184 | 66,509 | 24,500,761 |
| | | DIABLO | SAN ANDRES | NM | CHAVES | 1963 | 2000 | 45,487 | 1,332,827 |
| | | FLYING M | SAN ANDRES | NM | LEA | 1964 | 4400 | 128,934 | 11,164,009 |
| | | MESCALERO | SAN ANDRES | NM | LEA | 1962 | 4063 | 40,787 | 6,949,075 |
| | | MILNESAND | SAN ANDRES | NM | ROOSEVELT | 1958 | 4554 | 50,916 | 12,034,011 |
| | | SAWYER | SAN ANDRES | NM | LEA | 1947 | 5000 | 21,181 | 1,664,257 |
| | | SAWYER WEST | SAN ANDRES | NM | LEA | 1969 | 4950 | 34,277 | 4,244,060 |
| | | TODD | LOWER SAN ANDRES | NM | ROOSEVELT | 1965 | 4440 | 7,608 | 2,952,336 |
| | | TOM TOM | SAN ANDRES | NM | CHAVES | 1967 | 3914 | 21,292 | 3,539,296 |
| | | TOMAHAWK | SAN ANDRES | NM | CHAVES & RO( | 1977 | 4144 | 17,556 | 2,339,193 |
| | | TWIN LAKES | SAN ANDRES | NM | CHAVES | 1965 | 2600 | 70,286 | 5,306,383 |
| | **Totals** | | | | | | | **50,666,870** | **3,969,256,500** |

Table 23. Eastern Shelf San Andres Platform Carbonate play (Play 121). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 13047001 | 8A | BUENOS | | TX | GARZA | 1949 | 3397 | 28,989 | 1,834,059 |
| 18593666 | 8 | CLARK | SAN ANDRES | TX | STERLING | 1949 | 890 | 58,468 | 1,568,965 |
| 19346426 | 8A | COGDELL | SAN ANDRES | TX | KENT | 1951 | 1475 | 13,455 | 1,455,502 |
| 20553500 | 8A | CORAZON | SAN ANDRES | TX | SCURRY | 1953 | 2139 | 86,512 | 5,457,029 |
| 34113001 | 8A | GARZA | | TX | GARZA | 1926 | 2900 | 1,365,884 | 116,170,788 |
| 34113425 | 8A | GARZA | SAN ANDRES, DEEP | TX | GARZA | 1985 | 3465 | 260,431 | 9,648,491 |
| 37356666 | 8A | GUINN | SAN ANDRES | TX | LYNN | 1961 | 4031 | 12,836 | 1,875,859 |
| 40752500 | 8 | HERRELL, EAST | QUEEN SAND | TX | STERLING | 1953 | 1454 | 98,148 | 4,793,966 |
| 42971001 | 8 | HOWARD GLASSCOCK | | TX | HOWARD | 1925 | 1500 | 2,741,620 | 403,182,614 |
| 43731666 | 8A | HUNTLEY | 3400 | TX | GARZA | 1954 | 3387 | 397,269 | 16,691,235 |
| 43732500 | 8A | HUNTLEY, EAST | SAN ANDRES | TX | GARZA | 1956 | 3138 | 145,244 | 8,883,820 |
| 44147500 | 8 | IATAN | SAN ANDRES | TX | MITCHELL | 1957 | 2364 | 28,431 | 2,350,479 |
| 44149001 | 8 | IATAN, NORTH | | TX | HOWARD | 1943 | 2908 | 31,551 | 3,791,827 |
| 59304250 | 8 | MCDOWELL | SAN ANDRES | TX | GLASSCOCK | 1964 | 2341 | 9,867 | 2,526,387 |
| 62711001 | 8 | MOORE | | TX | HOWARD | 1937 | 3200 | 160,062 | 15,258,997 |
| 69351498 | 8 | PAROCHIAL-BADE | QUEEN SAND | TX | STERLING | 1951 | 1103 | 8,791 | 2,031,854 |
| 68101001 | 8A | P. H. D. | | TX | GARZA | 1944 | 3565 | 211,704 | 10,800,728 |
| 77643001 | 8A | ROCKER -A- | | TX | GARZA | 1950 | 2422 | 83,503 | 7,180,789 |
| 77647333 | 8A | ROCKER -A-, NW. | SAN ANDRES | TX | GARZA | 1959 | 2772 | 97,187 | 2,248,354 |
| 82710498 | 8A | SHARON RIDGE | 1700 | TX | SCURRY | 1923 | 1759 | 618,179 | 66,480,174 |
| 87173100 | 8A | SUNILAND | | TX | LYNN | 1978 | 3803 | 76,245 | 9,769,796 |
| 89732500 | 8A | THREE WAY | SAN ANDRES | TX | GARZA | 1958 | 3493 | 26,924 | 2,192,455 |
| 93233333 | 8 | VAREL | SAN ANDRES | TX | HOWARD | 1955 | 3080 | 15,313 | 6,542,943 |
| 95445666 | 7C | WATER VALLEY | SAN ANDRES | TX | TOM GREEN | 1948 | 1035 | 37,224 | 4,159,900 |
| | **Totals** | | | | | | | **6,613,837** | **706,897,011** |

Table 24. San Andres Karst-Modified Platform Carbonate play (Play 122).

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 21766001 | 7C | CROCKETT | | TX | CROCKETT | 1938 | 1571 | 21,883 | 4,762,786 |
| 58840001 | 7C | MCCAMEY | | TX | UPTON | 1925 | 2100 | 117,862 | 135,137,987 |
| 77841333 | 7C | RODMAN-NOEL | GRAYBURG | TX | UPTON | 1953 | 1745 | 1,091 | 1,143,800 |
| 88567700 | 8 | TAYLOR LINK W. | SAN ANDRES | TX | PECOS | 1984 | 1800 | 75,010 | 1,640,304 |
| 90286001 | 8 | TOBORG | | TX | PECOS | 1929 | 500 | 126,482 | 43,045,830 |
| 99295001 | 8 | YATES | | TX | PECOS | 1926 | 1500 | 11,117,801 | 1,381,373,107 |
| | **Totals** | | | | | | | **11,460,129** | **1,567,103,814** |

Table 25. San Andres Platform Carbonate play (Play 123). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 8618375 | 8A | BLACKWATCH | SAN ANDRES | TX | GAINES | 1995 | 4624 | 289,940 | 1,324,791 |
| 8958500 | 8 | BLOCK A-34 | SAN ANDRES | TX | ANDREWS | 1979 | 4676 | 16,529 | 1,120,760 |
| 10821500 | 8 | BOURLAND | SAN ANDRES | TX | ECTOR | 1952 | 4352 | 6,208 | 1,125,033 |
| 15724500 | 8A | CARM-ANN | SAN ANDRES | TX | GAINES | 1979 | 4779 | 40,031 | 1,307,285 |
| 14200400 | 8 | C-BAR | SAN ANDRES | TX | CRANE | 1949 | 3520 | 106,116 | 20,386,507 |
| 21289400 | 8 | COWDEN, NORTH | CLEAR FORK | TX | ECTOR | 1970 | 5239 | 187,810 | 5,850,903 |
| 21289600 | 8 | COWDEN, NORTH | DEEP | TX | ECTOR | 1939 | 5170 | 890,410 | 69,141,846 |
| 25347750 | 8 | DONNELLY | HOLT | TX | ECTOR | 1950 | 5275 | 25,315 | 1,710,117 |
| 25347875 | 8 | DONNELLY | SAN ANDRES | TX | ECTOR | 1950 | 4305 | 16,856 | 8,423,063 |
| 28899001 | 8 | EMMA | | TX | ANDREWS | 1939 | 4300 | 29,427 | 20,813,110 |
| 28899415 | 8 | EMMA | GLORIETA | TX | ANDREWS | 1953 | 5405 | 77,925 | 3,630,701 |
| 33230500 | 8 | FULLERTON | SAN ANDRES | TX | ANDREWS | 1945 | 4785 | 2,263,344 | 39,796,567 |
| 33473250 | 8A | G-M-K | SAN ANDRES | TX | GAINES | 1957 | 5598 | 348,872 | 15,599,746 |
| 33477500 | 8A | G-M-K, SOUTH | SAN ANDRES | TX | GAINES | 1963 | 5450 | 383,957 | 16,777,664 |
| 35652001 | 8 | GOLDSMITH | | TX | ECTOR | 1935 | 4300 | 650,195 | 357,953,213 |
| 35652558 | 8 | GOLDSMITH | HOLT | TX | ECTOR | 1952 | 5106 | 10,859 | 2,298,769 |
| 35653666 | 8 | GOLDSMITH, EAST | HOLT | TX | ECTOR | 1954 | 4988 | 13,515 | 8,214,446 |
| 35653888 | 8 | GOLDSMITH, EAST | SAN ANDRES | TX | ECTOR | 1962 | 4224 | 4,172 | 9,088,613 |
| 35654664 | 8 | GOLDSMITH, N. | SAN ANDRES, CON. | TX | ECTOR | 1964 | 4500 | 242,053 | 22,178,175 |
| 35659625 | 8 | GOLDSMITH, W. | SAN ANDRES | TX | ECTOR | 1956 | 4280 | 34,462 | 6,843,367 |
| 38686500 | 8A | HANFORD | SAN ANDRES | TX | GAINES | 1977 | 5421 | 199,866 | 11,999,935 |
| 39176001 | 8 | HARPER | | TX | ECTOR | 1933 | 4300 | 281,997 | 50,261,732 |
| 42401400 | 8A | HOMANN | SAN ANDRES | TX | GAINES | 1977 | 5328 | 50,334 | 2,058,353 |
| 37821900 | 8 | H. S. A. | SAN ANDRES | TX | WARD | 1979 | 4485 | 297,120 | 1,491,427 |
| 46132500 | 8A | JENKINS | SAN ANDRES | TX | GAINES | 1950 | 4543 | 149,200 | 3,162,188 |
| 47007400 | 8 | JOHNSON | HOLT | TX | ECTOR | 1973 | 5303 | 151,214 | 12,446,922 |
| 47267001 | 8 | JORDAN | | TX | CRANE | 1937 | 3700 | 396,670 | 90,771,561 |
| 49129594 | 8 | KEYSTONE | SAN ANDRES | TX | WINKLER | 1960 | 4465 | 179,306 | 4,308,999 |
| 49138100 | 8 | KEYSTONE, SW. | SAN ANDRES | TX | WINKLER | 1981 | 4446 | 32,957 | 1,306,447 |
| 52497333 | 8 | LAWSON | SAN ANDRES | TX | ECTOR | 1950 | 4320 | 39,262 | 16,068,261 |
| 52624800 | 8 | LEA | SAN ANDRES | TX | CRANE | 1955 | 3075 | 81,383 | 10,167,344 |
| 54116500 | 8 | LITTMAN | SAN ANDRES | TX | ANDREWS | 1951 | 4313 | 10,140 | 1,390,768 |
| 57774581 | 8 | MARTIN | SAN ANDRES | TX | ANDREWS | 1945 | 4300 | 531 | 2,920,470 |
| 60137001 | 8 | MEANS | | TX | ANDREWS | 1934 | 4400 | 3,879,160 | 232,243,704 |
| 69193426 | 8 | PARKER | GRAYBURG, SAN ANDRES | TX | ANDREWS | 1935 | 4800 | 82,719 | 4,322,184 |
| 70537001 | 8 | PENWELL | | TX | ECTOR | 1926 | 3800 | 1,075,359 | 100,075,474 |
| 77316852 | 8A | ROBERTSON | SAN ANDRES | TX | GAINES | 1952 | 4700 | 7,244 | 2,221,921 |
| 77318900 | 8A | ROBERTSON, N. | SAN ANDRES | TX | GAINES | 1976 | 4704 | 529,810 | 5,011,781 |
| 80473248 | 8 | SAND HILLS | JUDKINS | TX | CRANE | 1960 | 3000 | 149,953 | 12,616,500 |
| 80473310 | 8 | SAND HILLS | MCKNIGHT | TX | CRANE | 1944 | 3420 | 623,821 | 128,500,389 |
| 80481001 | 8 | SAND HILLS, WEST | | TX | CRANE | 1943 | 3883 | 34,616 | 2,899,960 |
| 82225142 | 8A | SEMINOLE | SAN ANDRES | TX | GAINES | 1936 | 5032 | 10,074,235 | 602,619,981 |
| 82226500 | 8A | SEMINOLE, EAST | SAN ANDRES | TX | GAINES | 1959 | 5450 | 225,895 | 10,892,763 |
| 82228800 | 8A | SEMINOLE, NE. | SAN ANDRES | TX | GAINES | 1986 | 5427 | 222,003 | 1,897,871 |
| 82231500 | 8A | SEMINOLE, SE. | SAN ANDRES | TX | GAINES | 1964 | 5310 | 30,980 | 3,007,614 |
| 82233001 | 8A | SEMINOLE, WEST | | TX | GAINES | 1948 | 5042 | 289,706 | 47,466,149 |
| 82570500 | 8 | SHAFTER LAKE | SAN ANDRES | TX | ANDREWS | 1953 | 4482 | 528,064 | 49,810,814 |
| 82572666 | 8 | SHAFTER LAKE, N. | SAN ANDRES | TX | ANDREWS | 1952 | 4559 | 2,914 | 1,231,741 |
| 83977500 | 8 | SLATOR | SAN ANDRES | TX | ECTOR | 1957 | 4172 | 5,925 | 2,416,337 |
| 89715400 | 8A | THREE-O-THREE | SAN ANDRES | TX | GAINES | 1991 | 5538 | 95,489 | 1,244,903 |
| 88071580 | 8 | TXL | SAN ANDRES | TX | ECTOR | 1952 | 4380 | 88,578 | 12,508,307 |
| 94482001 | 8 | WADDELL | | TX | CRANE | 1927 | 3500 | 966,371 | 108,369,174 |
| | **Totals** | | | | | | | **26,420,818** | **2,151,296,650** |

Table 26. Upper San Andres and Grayburg Platform Mixed—Central Basin Platform Trend play (Play 124).

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| | | ARROWHEAD | GRAYBURG | NM | LEA | 1957 | 6500 | 315,369 | 32,921,348 |
| | | CARTER SOUTH | GRAYBURG SAN ANDRES | NM | LEA | 1955 | 5150 | 20,772 | 2,369,529 |
| | | EUNICE MONUMENT | GRAYBURG SAN ANDRES | NM | LEA | 1929 | 3950 | 2,385,325 | 392,454,534 |
| | | EUNICE SOUTH | GRAYBURG SAN ANDRES | NM | LEA | 1969 | 3910 | 30,771 | 1,613,611 |
| | | HOBBS | GRAYBURG SAN ANDRES | NM | LEA | 1928 | 4000 | 2,672,316 | 340,970,244 |
| | | HOBBS EAST | GRAYBURG SAN ANDRES | NM | LEA | 1951 | 4449 | 143,422 | 5,894,293 |
| | | PENROSE | SKELLY GRAYBURG | NM | LEA | 1936 | 3435 | 141,074 | 21,616,809 |
| | | SKAGGS | GRAYBURG | NM | LEA | 1937 | 3608 | 81,311 | 11,117,325 |
| | | **Totals** | | | | | | **5,790,360** | **808,957,693** |

Table 27. Upper San Andres and Grayburg Platform Mixed—Artesia Vacuum Trend play (Play 125).

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| | | ARTESIA | QUEEN GRAYBURG SAN ANDRES | NM | EDDY | 1923 | 2190 | 470,624 | 32,271,228 |
| | | ATOKA | SAN ANDRES | NM | EDDY | 1950 | 1680 | 108,733 | 6,999,883 |
| | | EAGLE CREEK | SAN ANDRES | NM | EDDY | 1959 | 1292 | 41,554 | 4,321,284 |
| | | GRAYBURG JACKSON | SEVEN RIVERS QUEEN GRAYBURG S | NM | EDDY & LEA | 1929 | 2700 | 3,432,424 | 128,043,260 |
| | | HENSHAW WEST | GRAYBURG | NM | EDDY | 1956 | 2870 | 5,605 | 5,024,733 |
| | | LOCO HILLS | QUEEN GRAYBURG SAN ANDRES | NM | EDDY | 1949 | 2600 | 103,747 | 48,282,690 |
| | | LOVINGTON | GRAYBURG SAN ANDRES | NM | LEA | 1986 | 4700 | 66,016 | 14,689,351 |
| | | LOVINGTON WEST | UPPER SAN ANDRES | NM | LEA | 1990 | 4700 | 72,879 | 13,021,692 |
| | | MALJAMAR | GRAYBURG SAN ANDRES | NM | EDDY & LEA | 1939 | 4050 | 1,003,045 | 158,141,214 |
| | | RED LAKE | QUEEN GRAYBURG SAN ANDRES | NM | EDDY | 1934 | 1945 | 577,383 | 12,719,172 |
| | | SQUARE LAKE | GRAYBURG SAN ANDRES | NM | EDDY | 1941 | 3040 | 109,812 | 28,338,035 |
| | | SQUARE LAKE NORTH | QUEEN GRAYBURG SAN ANDRES | NM | EDDY | 1987 | 3300 | 9,376 | 2,690,235 |
| | | VACUUM | GRAYBURG SAN ANDRES | NM | LEA | 1929 | 4500 | 5,391,799 | 341,873,609 |
| | | **Totals** | | | | | | **11,392,997** | **796,416,386** |

Table 28. San Andres/Grayburg Lowstand Carbonate play (Play 126). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 570001 | 8A | ADAIR | | TX | GAINES | 1947 | 4874 | 913,427 | 66,079,283 |
| 4605444 | 8 | AZALEA | GRAYBURG | TX | MIDLAND | 1967 | 4088 | 34,643 | 2,064,038 |
| 9116500 | 8 | BLOCK 2 | GRAYBURG | TX | ANDREWS | 1957 | 4736 | 182,213 | 3,116,332 |
| 11601500 | 8 | BRAZOS | SAN ANDRES | TX | MIDLAND | 1982 | 4433 | 58,217 | 1,934,677 |
| 16580001 | 8A | CEDAR LAKE | | TX | GAINES | 1939 | 4800 | 2,369,564 | 105,374,960 |
| 16585500 | 8A | CEDAR LAKE, SE. | SAN ANDRES | TX | DAWSON | 1953 | 4940 | 13,074 | 1,649,672 |
| 34563400 | 8 | GERMANIA | GRAYBURG | TX | MIDLAND | 1952 | 3940 | 68,968 | 5,351,696 |
| 56378001 | 8 | MABEE | | TX | ANDREWS | 1943 | 4704 | 1,811,218 | 115,007,221 |
| 56159200 | 8 | M.F.E. | GRAYBURG | TX | ANDREWS | 1991 | 4936 | 174,577 | 3,556,164 |
| 61118001 | 8 | MIDLAND FARMS | | TX | ANDREWS | 1945 | 4800 | 1,032,777 | 161,255,366 |
| 61119333 | 8 | MIDLAND FARMS, E | GRAYBURG UPPER | TX | ANDREWS | 1969 | 4780 | 0 | 2,460,219 |
| 61120500 | 8 | MIDLAND FARMS, NORTH | GRAYBURG | TX | ANDREWS | 1953 | 4943 | 72,536 | 16,927,251 |
| 56432700 | 8A | MTS | SAN ANDRES | TX | DAWSON | 1984 | 4922 | 70,894 | 3,011,168 |
| 70279625 | 7C | PEGASUS | SAN ANDRES | TX | MIDLAND | 1954 | 5584 | 55,789 | 11,051,115 |
| 71267500 | 8 | PHOENIX | GRAYBURG | TX | MARTIN | 1972 | 3930 | 104,273 | 4,620,068 |
| 82275500 | 8 | SERIO | GRAYBURG | TX | ANDREWS | 1970 | 4806 | 154,358 | 4,834,677 |
| 85281001 | 8A | SPRABERRY | | TX | DAWSON | 1946 | 3930 | 53,522 | 2,381,850 |
| 88000500 | 8A | TLOC | SAN ANDRES | TX | TERRY | 1980 | 4904 | 52,796 | 1,457,257 |
| 96062001 | 8A | WELCH | | TX | DAWSON | 1941 | 5000 | 2,134,395 | 168,998,863 |
| | | **Totals** | | | | | | **9,357,241** | **681,131,877** |

Table 29. Grayburg Platform Mixed Clastic/Carbonate play (Play 127). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 21289001 | 8 | COWDEN, NORTH | | TX | ECTOR | 1930 | 4400 | 6,827,269 | 541,669,047 |
| 33176001 | 8 | FUHRMAN-MASCHO | | TX | ANDREWS | 1930 | 4700 | 918,794 | 119,367,788 |
| 91350300 | 8 | TRIPLE-N | GRAYBURG | TX | ANDREWS | 1964 | 4338 | 60,777 | 8,690,502 |
| | | | | **TX** | | | | | |
| | | **Totals** | | | | | | **7,806,840** | **669,727,337** |

Table 30. Grayburg Platform Carbonate play (Play 128). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 9358630 | 8 | BLOCK 31 | GRAYBURG | TX | CRANE | 1956 | 3200 | 523 | 4,918,490 |
| 21292001 | 8 | COWDEN, SOUTH | | TX | ECTOR | 1932 | 5050 | 877,505 | 161,204,532 |
| 21517001 | 8 | CRANE COWDEN | | TX | CRANE | 1932 | 2550 | 10,966 | 5,824,566 |
| 25742500 | 8 | DOUBLE -H- | GRAYBURG | TX | ECTOR | 1955 | 4456 | 39,062 | 4,217,866 |
| 26538001 | 8 | DUNE | | TX | CRANE | 1938 | 3270 | 849,214 | 192,685,765 |
| 27739001 | 8 | EDWARDS | | TX | ECTOR | 1935 | 3400 | 43,924 | 9,431,134 |
| 32309001 | 8 | FOSTER | | TX | ECTOR | 1935 | 4300 | 2,033,797 | 284,565,604 |
| 47007001 | 8 | JOHNSON | | TX | ECTOR | 1934 | 4200 | 370,516 | 35,981,707 |
| 59337001 | 8 | MCELROY | | TX | CRANE | 1926 | 2900 | 5,863,727 | 569,725,971 |
| 61269500 | 7C | MIETHER | GRAYBURG | TX | UPTON | 1956 | 3241 | 4,009 | 1,049,526 |
| 63143500 | 8 | MOSS | GRAYBURG | TX | ECTOR | 1955 | 3543 | 10,961 | 1,627,164 |
| | | **Totals** | | | | | | **10,104,204** | **1,271,232,325** |

Table 31. Grayburg High-Energy Platform Carbonate—Ozona Arch play (Play 129). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 7919001 | 7C | BIG LAKE | | TX | REAGAN | 1923 | 3000 | 304,598 | 133,973,558 |
| 9521500 | 7C | BLOCK 49 | 2450 | TX | REAGAN | 1955 | 2456 | 47,125 | 2,134,823 |
| 18500001 | 7C | CLARA COUCH | | TX | CROCKETT | 1941 | 2186 | 31,529 | 6,596,133 |
| 30243500 | 7C | FARMER | SAN ANDRES | TX | CROCKETT | 1953 | 2240 | 588,661 | 28,675,225 |
| 36565001 | 7C | GRAYSON | | TX | REAGAN | 1928 | 3050 | 7,320 | 1,482,688 |
| 38156001 | 7C | HALFF | | TX | CROCKETT | 1951 | 1680 | 12,847 | 3,991,162 |
| 46935500 | 7C | JOHN SCOTT | GRAYBURG | TX | REAGAN | 1953 | 2534 | 71,464 | 5,505,146 |
| 61204875 | 7C | MIDWAY LANE | 1300 | TX | CROCKETT | 1953 | 1300 | 8,181 | 1,712,554 |
| 61204500 | 7C | MIDWAY LANE | PERMIAN | TX | CROCKETT | 1956 | 1124 | 99,118 | 7,686,681 |
| 67284001 | 7C | OLSON | | TX | CROCKETT | 1940 | 1828 | 181,097 | 16,082,538 |
| 73085500 | 7C | PRICE | GRAYBURG | TX | REAGAN | 1953 | 2410 | 140,825 | 6,437,211 |
| 73468001 | 7C | PURE-BEAN | | TX | CROCKETT | 1952 | 1360 | 8,747 | 1,876,345 |
| 82663568 | 7C | SHANNON | SAN ANDRES | TX | CROCKETT | 1943 | 2406 | 43,596 | 12,449,849 |
| 83703001 | 7C | SIMPSON | | TX | CROCKETT | 1938 | 1985 | 23,756 | 1,118,315 |
| 89198500 | 7C | TEXON, S | GRAYBURG | TX | REAGAN | 1968 | 3266 | 16,426 | 1,275,271 |
| 90314400 | 7C | TODD | SAN ANDRES | TX | CROCKETT | 1951 | 1440 | 22,675 | 2,183,638 |
| 93264001 | 7C | VAUGHN | | TX | CROCKETT | 1947 | 1445 | 54,241 | 13,265,577 |
| 95867500 | 7C | WEGER | SAN ANDRES | TX | CROCKETT | 1955 | 2268 | 27,872 | 2,934,749 |
| 95869001 | 7C | WEGER, NORTH | | TX | CROCKETT | 1955 | 2318 | 21,190 | 1,173,145 |
| 98796001 | 7C | WORLD | | TX | CROCKETT | 1925 | 2600 | 166,896 | 45,886,544 |
| 99023001 | 7C | WYATT | | TX | CROCKETT | 1940 | 1224 | 90,521 | 1,937,617 |
| | | **Totals** | | | | | | **1,968,685** | **298,378,769** |

Table 32. Delaware Mountain Group Basinal Sandstone play (Play 130). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD | SUBPLAY |
|---|---|---|---|---|---|---|---|---|---|---|
| 9288500 | 8 | BLOCK 17, SOUTHEAST | DELAWARE | TX | WARD | 1956 | 5003 | 40,324 | 1,722,191 | Bell Canyon |
| 15499380 | 8 | CAPRITO | DELAWARE MIDDLE | TX | WARD | 1974 | 6164 | 193,628 | 5,587,028 | Cherry Canyon |
| 17029001 | 8 | CHAPMAN | | TX | REEVES | 1948 | 2900 | 10,149 | 1,578,789 | Bell Canyon |
| 19665200 | 8 | COLLIE | DELAWARE | TX | WARD | 1981 | 4725 | 115,115 | 3,479,423 | Bell Canyon |
| 21382250 | 8 | COYANOSA | DELAWARE SD. | TX | PECOS | 1959 | 4793 | 20,112 | 1,327,118 | Bell Canyon |
| 21384666 | 8 | COYANOSA, N. | DELAWARE | TX | PECOS | 1966 | 4809 | 18,136 | 3,249,484 | Bell Canyon |
| 24853400 | 8 | DIMMITT | CHERRY CANYON | TX | LOVING | 1980 | 6226 | 230,734 | 8,574,522 | Cherry Canyon |
| 28019500 | 8 | EL MAR | DELAWARE | TX | LOVING | 1959 | 4532 | 218,771 | 18,927,176 | Bell Canyon |
| 31908500 | 8 | FORD, EAST | DELAWARE SAND | TX | REEVES | 1963 | 2730 | 93,295 | 3,401,021 | Bell Canyon |
| 31913500 | 8 | FORD, WEST | 4100 | TX | CULBERSON | 1963 | 4143 | 33,736 | 3,010,344 | Cherry Canyon |
| 34529200 | 8 | GERALDINE | DELAWARE 3400 | TX | CULBERSON | 1982 | 3454 | 7,645 | 1,598,553 | Bell Canyon |
| 34529666 | 8 | GERALDINE | FORD | TX | REEVES | 1957 | 2557 | 121,301 | 30,222,300 | Bell Canyon |
| 36924500 | 8 | GRICE | DELAWARE | TX | LOVING | 1956 | 4510 | 98,088 | 10,207,517 | Cherry Canyon |
| 43106200 | 8 | HUBBARD | CHERRY CANYON | TX | LOVING | 1982 | 5286 | 39,418 | 1,145,161 | Cherry Canyon |
| 46296300 | 8 | JESS BURNER | DELAWARE 3800 | TX | REEVES | 1982 | 3802 | 49,375 | 2,828,941 | Cherry Canyon |
| 48754500 | 8 | KEN REGAN | DELAWARE | TX | REEVES | 1954 | 3350 | 62,249 | 4,370,922 | Bell Canyon |
| 53989250 | 8 | LITTLE JOE | DELAWARE | TX | WINKLER | 1965 | 5034 | 21,409 | 1,728,191 | Bell Canyon |
| 58099001 | 8 | MASON | | TX | LOVING | 1937 | 3900 | 3,393 | 3,020,075 | Bell Canyon |
| 58101500 | 8 | MASON, N. | DELAWARE SAND | TX | LOVING | 1952 | 4055 | 15,383 | 6,709,456 | Bell Canyon |
| 62494001 | 8 | MONROE | | TX | WARD | 1931 | 4600 | 4,664 | 4,146,637 | Bell Canyon |
| 67074500 | 8 | OLDS | DELAWARE | TX | REEVES | 1958 | 3029 | 7,490 | 1,340,153 | Bell Canyon |
| 67604500 | 8 | ORLA, SOUTH | DELAWARE SAND | TX | REEVES | 1953 | 3562 | 0 | 1,044,747 | Bell Canyon |
| 71542400 | 8 | PINAL DOME | CHERRY CANYON | TX | LOVING | 1984 | 6485 | 68,790 | 1,432,297 | Cherry Canyon |
| 73926500 | 8 | QUITO | DELAWARE SAND | TX | WARD | 1953 | 4934 | 365 | 2,444,299 | Bell Canyon |
| 73933500 | 8 | QUITO, WEST | DELAWARE | TX | WARD | 1955 | 4732 | 231,531 | 5,329,219 | Bell Canyon |
| 76184333 | 8 | RHODA WALKER | CANYON 5900 | TX | WARD | 1967 | 6192 | 273,194 | 17,234,663 | Cherry Canyon |
| 77953250 | 8 | ROJO CABALLOS | DELAWARE | TX | PECOS | 1962 | 5253 | 13,649 | 1,097,828 | Bell Canyon |
| 79423500 | 8 | SABRE | DELAWARE | TX | REEVES | 1958 | 2968 | 55,697 | 5,913,660 | Bell Canyon |
| 81738200 | 8 | SCOTT | CHERRY CANYON | TX | REEVES | 1978 | 6134 | 41,377 | 1,013,358 | Cherry Canyon |
| 81738250 | 8 | SCOTT | DELAWARE | TX | WARD | 1946 | 4239 | 186,910 | 5,416,369 | Bell Canyon |
| 81821333 | 8 | SCREWBEAN, NE. | DELAWARE | TX | REEVES | 1961 | 2519 | 7,244 | 1,224,697 | Bell Canyon |
| 87025500 | 8 | SULLIVAN | DELAWARE | TX | REEVES | 1957 | 2665 | 11,204 | 1,861,453 | Bell Canyon |
| 90781200 | 8 | TORO | DELAWARE | TX | REEVES | 1961 | 5158 | 8,985 | 1,059,893 | Bell Canyon |
| 91817001 | 8 | TUNSTILL | | TX | REEVES | 1947 | 3270 | 42,888 | 12,199,635 | Bell Canyon |
| 91818500 | 8 | TUNSTILL, EAST | DELAWARE | TX | LOVING | 1959 | 3652 | 25,779 | 2,870,757 | Bell Canyon |
| 92141333 | 8 | TWOFREDS | DELAWARE | TX | LOVING | 1957 | 4895 | 102,854 | 14,599,875 | Bell Canyon |
| 94648166 | 8 | WAHA | DELAWARE | TX | PECOS | 1960 | 4800 | 36,362 | 1,535,150 | Bell Canyon |
| 94650333 | 8 | WAHA, NORTH | DELAWARE SAND | TX | REEVES | 1960 | 4917 | 48,487 | 6,771,248 | Bell Canyon |
| 94656086 | 8 | WAHA, W. | CONSOLIDATED DELAWARE | TX | REEVES | 1974 | 6504 | 41,983 | 2,843,944 | Cherry Canyon |
| 94656111 | 8 | WAHA, WEST | DELAWARE | TX | REEVES | 1961 | 5034 | 21,072 | 2,514,728 | Bell Canyon |
| 95122200 | 8 | WAR-WINK | CHERRY CANYON | TX | WARD | 1965 | 6037 | 511,500 | 3,251,201 | Cherry Canyon |
| 95123875 | 8 | WAR-WINK, E. | 7000 | TX | WINKLER | 1994 | 7092 | 127,182 | 1,127,453 | Cherry Canyon |
| 96742001 | 8 | WHEAT | | TX | LOVING | 1925 | 4300 | 51,409 | 22,583,024 | Bell Canyon |
| 96742300 | 8 | WHEAT | CHERRY CANYON | TX | LOVING | 1979 | 6610 | 86,088 | 2,118,654 | Cherry Canyon |
| 98817775 | 8 | WORSHAM | DELAWARE SAND | TX | REEVES | 1960 | 4932 | 33,238 | 1,691,018 | Bell Canyon |

Table 32, continued. Delaware Mountain Group Basinal Sandstone play (Play 130).

| FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD | SUBPLAY |
|---|---|---|---|---|---|---|---|---|
| AVALON | DELAWARE | NM | EDDY | 1980 | 2550 | 252,989 | 4,952,379 | Bell Canyon, Cherry Canyon, Brushy Canyon |
| BRUSHY DRAW | DELAWARE | NM | EDDY | 1958 | 3200 | 221,902 | 6,967,405 | Bell Canyon, Cherry Canyon |
| CABIN LAKE | DELAWARE | NM | EDDY | 1987 | 5625 | 181,767 | 3,798,138 | Brushy Canyon, Cherry Canyon |
| CATCLAW DRAW EAST | DELAWARE | NM | EDDY | 1990 | 3074 | 75,490 | 1,219,588 | Brushy Canyon, Bell Canyon, Cherry Canyon |
| CEDAR CANYON | DELAWARE | NM | EDDY | 1976 | 5200 | 184,019 | 1,010,544 | Cherry Canyon, Brushy Canyon |
| CORBIN WEST | DELAWARE | NM | LEA | 1976 | 5030 | 106,008 | 2,746,804 | **Bell Canyon**, Brushy Canyon |
| CRUZ | DELAWARE | NM | LEA | 1961 | 5081 | 781 | 1,034,285 | Bell Canyon |
| DOUBLE X | DELAWARE | NM | LEA | 1961 | 4914 | 10,270 | 1,400,945 | Bell Canyon |
| EL MAR | DELAWARE | NM | LEA | 1959 | 4550 | 29,437 | 6,255,832 | Brushy Canyon |
| ESPERANZA | DELAWARE | NM | EDDY | 1969 | 3400 | 32,732 | 1,272,693 | Bell Canyon, Cherry Canyon |
| HAT MESA | DELAWARE | NM | LEA | 1989 | 6834 | 264,453 | 1,976,201 | **Brushy Canyon**, Cherry Canyon |
| HERRADURA BEND | DELAWARE | NM | EDDY | 1977 | 11086 | 25,209 | 1,012,833 | Bell Canyon |
| HERRADURA BEND EAST | DELAWARE | NM | EDDY | 1985 | 6062 | 112,309 | 1,555,292 | Brushy Canyon |
| INDIAN DRAW | DELAWARE | NM | EDDY | 1973 | 3262 | 54,625 | 3,316,622 | Cherry Canyon |
| INGLE WELLS | DELAWARE | NM | EDDY | 1989 | 8100 | 665,836 | 7,458,269 | Brushy Canyon |
| LEA NORTHEAST | DELAWARE | NM | LEA | 1988 | 5658 | 436,236 | 4,004,802 | **Cherry Canyon**, Brushy Canyon |
| LIVINGSTON RIDGE | DELAWARE | NM | EDDY | 1989 | 7091 | 355,051 | 5,155,100 | **Brushy Canyon**, Cherry Canyon |
| LIVINGSTON RIDGE EAST | DELAWARE | NM | LEA | 1992 | 7200 | 100,566 | 1,992,444 | Brushy Canyon, Cherry Canyon |
| LOS MEDANOS | DELAWARE | NM | EDDY | 1990 | 4218 | 178,629 | 2,894,378 | Brushy Canyon |
| LOST TANK | DELAWARE | NM | EDDY & LEA | 1991 | 6783 | 171,309 | 2,688,111 | **Brushy Canyon**, Cherry Canyon |
| LOVING | BRUSHY CANYON | NM | EDDY | 1993 | 6050 | 306,580 | 7,074,110 | Brushy Canyon |
| LUSK WEST | DELAWARE | NM | LEA | 1987 | 6450 | 163,949 | 2,753,235 | **Brushy Canyon**, Cherry Canyon |
| MALAGA | DELAWARE | NM | EDDY | 1951 | 2770 | 14,526 | 1,006,678 | Bell Canyon, Cherry Canyon, Brushy Canyon |
| MASON EAST | DELAWARE | NM | LEA | 1962 | 4370 | 19,378 | 1,427,836 | Bell Canyon |
| MASON NORTH | DELAWARE | NM | EDDY & LEA | 1954 | 4115 | 35,016 | 4,737,873 | Bell Canyon, Cherry Canyon |
| NASH DRAW | BRUSHY CANYON | NM | EDDY | 1992 | 6713 | 282,583 | 1,777,626 | Brushy Canyon |
| PADUCA | DELAWARE | NM | LEA | 1960 | 4636 | 29,690 | 13,922,378 | Bell Canyon |
| PARKWAY | DELAWARE | NM | EDDY | 1988 | 4135 | 386,121 | 3,307,433 | Cherry Canyon, Brushy Canyon |
| RED TANK WEST | DELAWARE | NM | LEA | 1992 | 8330 | 672,646 | 4,873,021 | Brushy Canyon |
| SAND DUNES | CHERRY CANYON | NM | EDDY | 1970 | 6020 | 10,723 | 1,076,059 | Cherry Canyon |
| SAND DUNES WEST | DELAWARE | NM | EDDY | 1992 | 7820 | 322,488 | 5,938,672 | Brushy Canyon |
| SHUGART | DELAWARE | NM | EDDY | 1958 | 4970 | 19,884 | 1,640,470 | Cherry Canyon |
| SHUGART EAST | DELAWARE | NM | LEA | 1985 | 5012 | 52,842 | 2,310,167 | Cherry Canyon, Brushy Canyon |
| **Totals** | | | | | | **9,208,247** | **351,912,395** | |

Bold names indicate main productive zone

Table 33. Queen Tidal-Flat Sandstone play (Play 131). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 20004666 | 8 | CONCHO BLUFF | QUEEN | TX | CRANE | 1956 | 4131 | 47,654 | 8,689,957 |
| 20006500 | 8 | CONCHO BLUFF, NORTH | QUEEN | TX | ECTOR | 1956 | 4490 | 547,809 | 15,394,816 |
| 39242333 | 8A | HARRIS | QUEEN | TX | GAINES | 1957 | 4148 | 16,438 | 1,672,816 |
| 56822625 | 8 | MAGUTEX | QUEEN | TX | ANDREWS | 1958 | 4862 | 87,928 | 4,868,087 |
| 59419664 | 8 | MCFARLAND | QUEEN | TX | ANDREWS | 1955 | 4790 | 201,349 | 42,782,895 |
| 59420500 | 8 | MCFARLAND, EAST | QUEEN | TX | ANDREWS | 1955 | 4789 | 26,551 | 2,560,021 |
| 60137500 | 8 | MEANS | QUEEN SAND | TX | ANDREWS | 1954 | 4024 | 77,759 | 39,045,231 |
| 60139500 | 8 | MEANS, N. | QUEEN SAND | TX | GAINES | 1955 | 4341 | 40,834 | 8,270,696 |
| 62781500 | 8 | MOOSE | QUEEN | TX | ECTOR | 1958 | 4512 | 255,601 | 9,078,764 |
| 65674001 | 7C | NOELKE | | TX | CROCKETT | 1940 | 1133 | 779 | 5,595,084 |
| 73167500 | 8 | PRIEST & BEAVERS | QUEEN | TX | PECOS | 1957 | 2180 | 7,958 | 2,387,501 |
| 82570700 | 8 | SHAFTER LAKE | YATES | TX | ANDREWS | 1952 | 3054 | 7,293 | 1,951,628 |
| 88562001 | 8 | TAYLOR LINK | | TX | PECOS | 1929 | 1800 | 14,399 | 15,896,612 |
| 93958525 | 8 | VIREY | QUEEN | TX | MIDLAND | 1988 | 4299 | 151,810 | 1,991,053 |
| 94747001 | 8 | WALKER | | TX | PECOS | 1940 | 2016 | 10,627 | 9,482,673 |
| 96875001 | 8 | WHITE & BAKER | | TX | PECOS | 1934 | 1100 | 9,742 | 5,575,897 |
| 99295333 | 8 | YATES | SMITH SAND | TX | PECOS | 1944 | 1100 | 12,970 | 4,356,435 |
| | | **Totals** | | | | | | **1,517,501** | **179,600,166** |

Table 34. Artesia Platform Sandstone play (Play 132). Production shown for fields that have had others combined into them represents the totals; combined fields are highlighted.

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 292551 | 8 | ABELL | PERMIAN 2200 | TX | PECOS | 1949 | 2200 | 22,870 | 1,074,575 |
| 4184666 | 8 | ATAPCO | QUEEN | TX | CRANE | 1959 | 2140 | 26,481 | 1,351,920 |
| 6853333 | 8 | BELDING | YATES | TX | PECOS | 1964 | 2672 | 100,936 | 1,138,199 |
| 14155001 | 8 | BYRD | | TX | WARD | 1942 | 2700 | 5,047 | 1,148,651 |
| 25501500 | 8 | DORR | QUEEN SAND | TX | WARD | 1955 | 2291 | 21,036 | 1,045,088 |
| 28962001 | 8 | EMPEROR, DEEP | | TX | WINKLER | 1935 | 3000 | 39,499 | 11,773,170 |
| 32124001 | 8 | FORT STOCKTON | | TX | PECOS | 1944 | 2892 | 259,922 | 34,386,845 |
| 32124625 | 8 | FORT STOCKTON | YATES LOWER | TX | PECOS | 1943 | 3072 | 0 | 1,770,005 |
| 32344800 | 8 | FOUR C | SAN ANDRES | TX | PECOS | 1975 | 2302 | 51,217 | 1,110,536 |
| 38255001 | 8 | HALLEY | | TX | WINKLER | 1939 | 3150 | 129,142 | 44,608,756 |
| 38260664 | 8 | HALLEY, SOUTH | QUEEN SAND | TX | WINKLER | 1960 | 3113 | 57,841 | 4,788,167 |
| 40354001 | 8 | HENDERSON | | TX | WINKLER | 1936 | 3030 | 33,553 | 16,617,751 |
| 40406001 | 8 | HENDRICK | | TX | WINKLER | 1926 | 3100 | 315,251 | 265,038,391 |
| 49038001 | 8 | KERMIT | | TX | WINKLER | 1928 | 2800 | 215,702 | 111,012,043 |
| 49129132 | 8 | KEYSTONE | COLBY | TX | WINKLER | 1939 | 3300 | 219,044 | 75,325,366 |
| 53000830 | 8 | LEHN-APCO | 1600 | TX | PECOS | 1939 | 1700 | 6,812 | 3,296,731 |
| 53002666 | 8 | LEHN-APCO, NORTH | 1600 | TX | PECOS | 1946 | 1945 | 3,515 | 3,200,802 |
| 56761001 | 8 | MAGNOLIA SEALY | | TX | WARD | 1939 | 3000 | 63,721 | 5,774,660 |
| 56766001 | 8 | MAGNOLIA SEALY, SOUTH | | TX | WARD | 1940 | 2847 | 11,688 | 3,580,223 |
| 56949500 | 8 | MALICKY | QUEEN SAND | TX | PECOS | 1949 | 1964 | 7,577 | 3,604,412 |
| 58164001 | 8 | MASTERSON | | TX | PECOS | 1929 | 1500 | 2 | 2,723,125 |
| 62415747 | 8 | MONAHANS | QUEEN SAND | TX | WARD | 1960 | 3269 | 29,452 | 6,505,467 |
| 62420666 | 8 | MONAHANS, SOUTH | QUEEN | TX | WARD | 1961 | 3108 | 25,049 | 8,027,310 |
| 64995001 | 8 | NETTERVILLE | | TX | PECOS | 1934 | 2400 | 4,223 | 3,325,351 |
| 66588001 | 8 | OATES | | TX | PECOS | 1947 | 790 | 47,335 | 1,595,709 |
| 69873001 | 8 | PAYTON | | TX | PECOS | 1938 | 2000 | 46,004 | 14,835,765 |
| 70129580 | 8 | PECOS VALLEY | HIGH GRAVITY | TX | PECOS | 1928 | 1800 | 55,939 | 20,014,222 |
| 70129638 | 8 | PECOS VALLEY | LOW GRAVITY | TX | PECOS | 1928 | 1600 | 14,576 | 6,747,210 |
| 81392001 | 8 | SCARBOROUGH | | TX | WINKLER | 1927 | 3200 | 23,055 | 37,034,546 |
| 81394001 | 8 | SCARBOROUGH, NORTH | | TX | WINKLER | 1947 | 3286 | 3,290 | 3,443,096 |
| 81952500 | 8 | SEALY, SOUTH | YATES | TX | WARD | 1946 | 2700 | 4,676 | 1,229,767 |
| 82822001 | 8 | SHEARER | | TX | PECOS | 1938 | 1400 | 0 | 4,684,529 |
| 83292500 | 8 | SHIPLEY | QUEEN SAND | TX | WARD | 1928 | 3075 | 34,250 | 29,037,233 |
| 85104001 | 8 | SPENCER | | TX | WARD | 1941 | 2900 | 9,365 | 3,071,702 |
| 92304500 | 8 | U S M | QUEEN | TX | PECOS | 1964 | 3368 | 24,088 | 2,219,718 |
| 95138001 | 8 | WARD, SOUTH | | TX | WARD | 1938 | 2700 | 280,237 | 108,366,864 |
| 95152001 | 8 | WARD-ESTES, NORTH | | TX | WARD | 1929 | 3000 | 1,320,287 | 412,799,795 |
| 95970200 | 8 | WEINER | COLBY SAND | TX | WINKLER | 1941 | 3200 | 25,399 | 9,239,506 |
| 97201500 | 8 | WICKETT, SOUTH | YATES | TX | WARD | 1952 | 2640 | 7,080 | 1,894,254 |

Table 35. Upper Pennsylvanian Shelf Sandstone play[1].

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 2711001 | 8A | ANDREW NOODLE CREEK | | TX | KENT | 1969 | 4010 | 0 | 1,063,283 |
| 21959500 | 8A | CROTON CREEK, E. | TANNEHILL | TX | DICKENS | 1969 | 4574 | 0 | 1,285,205 |
| 64626380 | 8A | NAVIGATOR | TANNEHILL B | TX | DICKENS | 1996 | 4418 | 323,280 | 1,273,061 |
| 78525500 | 8A | ROUGH DRAW, N. | NOODLE CREEK | TX | KENT | 1963 | 4140 | 4,050 | 1,620,751 |
| 91784700 | 8A | TUMBLEWEED, NW. | TANNEHILL | TX | DICKENS | 1986 | 4108 | 99,226 | 2,021,841 |
| | | | | TX | | | | | |
| | | **Totals** | | | | | | **426,556** | **7,264,141** |

[1] Not included in play portfolio because most of play is in North-Central Texas geologic province. Production listed here represents only the five reservoirs in the Permian Basin part of the play.

Table 36. Pennsylvanian/Lower Permian Reef/Bank play[2].

| RRC RESN | RRC | FLDNAME | RESNAME | STATE | COUNTY | DISCYR | DEPTHTOP | 2000 PROD | CUMPROD |
|---|---|---|---|---|---|---|---|---|---|
| 10556500 | 8A | BOOMERANG | PENNSYLVANIAN REEF | TX | KENT | 1955 | 6582 | 11,653 | 3,293,149 |
| 10560500 | 8A | BOOMERANG, S. | STRAWN LIME | TX | KENT | 1964 | 6623 | 15,741 | 5,589,563 |
| 18436333 | 8A | CLAIREMONT | PENN., LOWER | TX | KENT | 1950 | 6742 | 32,794 | 15,880,427 |
| 18437333 | 8A | CLAIREMONT, EAST | STRAWN | TX | KENT | 1960 | 6494 | 12,607 | 1,456,046 |
| 45582666 | 8 | JAMESON, NORTH | STRAWN | TX | MITCHELL | 1953 | 5866 | 32,005 | 9,622,521 |
| 74505500 | 7C | RANCH | STRAWN | TX | CROCKETT | 1953 | 8156 | 6,680 | 3,744,987 |
| 83873750 | 7C | SIXTY SEVEN | STRAWN REEF | TX | IRION | 1956 | 6898 | 23,313 | 2,867,254 |
| 90315001 | 7C | TODD, DEEP | | TX | CROCKETT | 1940 | 5691 | 0 | 3,679,628 |
| 90315333 | 7C | TODD, DEEP | CRINOIDAL | TX | CROCKETT | 1940 | 5778 | 169,638 | 37,338,101 |
| 98803500 | 7C | WORLD, WEST | STRAWN | TX | CROCKETT | 1954 | 8190 | 10,752 | 8,632,607 |
| | | **Totals** | | | | | | **315,183** | **92,104,283** |

[2] Not included in play portfolio because most of play is in North-Central Texas geologic province. Production listed here represents only the 10 reservoirs in the Permian Basin part of the play.